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I am submitting herewith a dissertation written by Richard Stanley Riggs entitled "A Suggested Health Education and Information Component for Preretirement Programs." I recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Education, with a major in Health Education.

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A SUGGESTED HEALTH EDUCATION AND INFORMATION COMPONENT FOR PRERETIREMENT PROGRAMS

A Dissertation

Presented for the

Doctor of Education

Degree

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Richard Stanley Riggs

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ABSTRACT

The purpose of the study was the development of a suggested health education and information component for the Tennessee Valley Authority's Program of Preparation for Retirement. The health component however, was designed to permit its incorporation into any preretirement program. The content of the program was based upon the perceived health needs/problems and interests of TVA employees approaching retirement and retirees. The study also determined socioeconomic and demographic characteristics of the two samples plus their interest in health and perceptions of their health status. The subjects evaluated TVA's preretirement program in terms of its content adequately covering areas of concern to the participants. The format of the program in general and the health component specifically were determined by the subjects' responses to: (1) time devoted to the health component, (2) time prior to retirement when program should be offered, and (3) instructional techniques to be used in presenting the program.

A random proportional sample of men and women were drawn from both employed and retired personnel. A total of 427 employees and 497 retirees were mailed questionnaires with 338 employees and 336 retirees completing and returning them to TVA. The data were reported and analyzed utilizing frequencies, percentages, and the Chi-Square test for two independent samples.

The major findings of the study revealed three health needs/problems of employees that differed significantly from retirees. These were:

food needs of the older citizen, exercise and physical fitness, and rest and relaxation. Employees ranked as their greatest needs: chronic disease, exercise and physical fitness, access to doctors and medical facilities, and knowledge of medical insurance. Retirees ranked as their greatest health needs/problems: chronic disease, exercise and physical fitness, and knowledge of medical insurance.

The health interests of employees which were of more concern to them than to retirees were: food needs of the older citizen and the ways to prevent poor health. Retirees were more concerned than employees with the effects of the aging process on the human body. Employees ranked as their greatest health interests: exercise and physical fitness and medical insurance. Retirees' greatest interests were in the areas of weight control, exercise and physical fitness, and ways to prevent poor health.

The majority of both samples believed five years prior to retirement to be the best time for offering preretirement programs. They recommended the time devoted to the health component to be two hours in length.

Employees ranked as their most preferred instructional techniques: small groups with a discussion leader and problem-solving activities; while retirees selected small groups with a discussion leader, aduiovisual aids, and problem-solving activities.

The subjects in both samples mostly agreed that the program either has or could help them enjoy successful retirement in general, and specifically help them in meeting their health needs/problems and interests.

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CHAPTER I

INTRODUCTION

Whatever the title, preretirement counseling, preretirement education, preparation for retirement, or retirement planning, the need exists for men and women to prepare for that phase of life known as retirement. In acknowledging the need for preretirement preparation the White House Conference on Aging of 1971 made the following recommendations:

> Preretirement education and counseling should be provided locally throughout the nation by trained instructors, starting at least five years before normal retirement age. Information on problems and opportunities involved in retirement should be included in family living and other pertinent courses at all educational levels. (63:6)
>
> Preretirement education programs must be established to help those approaching retirement age to achieve greater satisfaction and fulfillment in later years. Preretirement education must be the primary responsibility of the public education sector in cooperation with relevant community organizations in the areas of industry, labor, all levels of government, voluntary service, and private associations. (62:6)
>
> Society should adopt a policy of preparation for retirement, leisure and education for life off the job. The private and public sectors should adopt and expand programs to prepare persons to understand and benefit from changes produced by retirement. Programs should be developed with Government at all levels, educational systems, religious institutions,

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*Numbers in parentheses refer to items listed under references. Multiple references are separated by commas—(1,2). Specific page references are separated from their item numbers by colons—(1:333) or (1:333, 2:444-445).

> recreation departments, business and labor to provide opportunities for the acquisition of the necessary attitudes, skills, and knowledge to assure successful living. Retirement and leisure time planning begins with the early years and continues through life. (64:3)

Various labor groups, church groups, colleges, universities, and other organizations are meeting their obligation by instituting programs to prepare men and women for retirement. The Tennessee Valley Authority (TVA) provides an example of an organization's preretirement program known as the Program of Preparation for Retirement. Instituted in 1956, the program was designed to help those who were interested in planning or beginning to plan how they would spend their retirement years. The comprehensive program consists of a series of six seminars dealing with financial planning, retirement benefits, health, activities for retirement, family relationships and where to live, and legal adjustments of retirement.

As a discipline, health education has an interest in and a responsibility for the development of the health components of pre-retirement education programs. The health educator should involve himself with the health needs of the aging because this area of needs constitutes a large portion of the elderly person's demands. The health needs of the aged are interrelated with other needs which include: (1) the need for better physical and mental health, (2) nutrition, (3) preventative health services, (4) access to health and medical facilities, and (5) health education. Therefore, it is essential that the health component of preretirement programs be based upon the health needs and interests of those the program is designed to serve.

I. PURPOSE OF THE STUDY

The purpose of this study was the development of a suggested health education and information component for TVA's Program of Preparation for Retirement based primarily on the perceived health needs/problems and interests of employees approaching retirement and retirees.

II. STATEMENT OF THE PROBLEM

In order to accomplish the goal of this research, it was necessary to study TVA's Program of Preparation for Retirement. In particular, an investigation was made of the composition of the health education component of TVA's preretirement program.

Additionally, there were two subproblems in the form of the following questions:

1. Do the perceived health needs/problems and interests of TVA retirees and those approaching retirement differ, and if so, how do they differ?

2. What perceived health needs/problems and interests of TVA retirees and those approaching retirement are not being met by the Program of Preparation for Retirement?

III. NEED FOR THE STUDY

Two goals stated in Title I of the Older Americans Act are:

> The best possible physical and mental health which science can make available and without regard to economic status. Retirement in health, honor, dignity—after years of contribution to the economy. (60:10)

However, the literature revealed that these goals have not been reached by many retirees. A report of the White House Conference on Aging of 1971 stated, "The elderly and especially those 65 years of age and over have enormous health needs" (60:6). With a multitude of health needs, the older American cannot hope to enjoy the quality of life that is the right of every citizen. Along with the aging process, the needs of the aged man or woman are modified to produce different degrees and intensities of needs rather than a change in the needs themselves. Holley and Feild expressed this in the statement that the needs of the aged vary from organization to organization and therefore, ". . . the universality of such needs cannot be assumed" (30:528). An example of the change in the intensity of the needs of the aged can be expressed by the fact that all people need food. However, for the aged, caloric requirements and metabolic levels needed for proper nutritional requirements are different than for a younger person. In addition, diet as related to disease is an important consideration of the aging man or woman and becomes increasingly important as the aging process occurs.

A possible solution to the problems encountered by the aging is preparation for the retirement years. Hunter has investigated preretirement programs and has concluded:

> . . . there is urgent need for preretirement education designed to help older people understand the aging process, to impart knowledge and problem solving skills that will enable older people to maintain better health, foster contacts with other people, use their time meaningfully, manage their financial resources effectively, to promote good family living, encourage citizenship, encourage a

> positive attitude toward aging and retirement, to present a variety of solutions to practical problems of living, to encourage older people to select and try those solutions which appeal to them most, and to explore new roles for the later years. At the same time as preretirement education helps the older individual make better adjustment to aging and retirement it must share responsibility for encouraging social change by involving key leaders and by making known resources needed by older people in the community. (31:2-3)

Therefore, what is needed is for industry and other groups to determine the preceived needs/problems and interests of their retired, more specifically, their perceived health needs and interests. With an identification of these requirements of the older citizen, the health education and information preretirement program can be designed to meet the particular needs/problems and interests of the organization's employees or members. Such a component could be utilized as a model by other groups as a part of their preretirement programs. The health component would help employees approaching retirement to be aware of possible health needs they would encounter and thus be in a better position to take preventative action. In addition, the program would help retired employees and their families to be aware of their health needs/problems and interests and if possible eliminate them; thus, "If a health need is met and eliminated, it is assumed that the aged would come closer to enjoying the quality of life that is within their potential" (60:1).

IV. BASIC ASSUMPTION

The following basic assumption was important to the study:

The perceived health needs/problems and interests of preretirees and retirees as represented by the study population can best be identified and expressed by them.

V. HYPOTHESIS

The null hypothesis tested in this investigation was that there is no difference in the perceived health needs/problems and interests of TVA employees approaching retirement and TVA retirees.

VI. DELIMITATIONS OF THE STUDY

The study was delimited to employees of TVA who are approaching retirement and retired TVA employees. Those employees approaching retirement were at least fifty-four years of age. These men and women were born between the years 1911 and 1920 and were members of TVA's retirement system. The TVA retirees had been retired for not longer than five years. These men and women retired between the years 1970 and 1974. Also, those retirees participating in the study were average retirees having no medical condition or disability that forced them to retire.

VII. LIMITATION OF THE STUDY

The researcher was limited to reporting only those responses that were elicited by employees and retirees of TVA who were willing to participate in the study.

VIII. DEFINITION OF TERMS

The following terms are defined as they relate to this study:

1. Health. Utilizing a definition by Lenzer, health is defined as, "the ability to function well enough to carry out normal roles and responsibilities in the community" (41:63).

2. Perceived Health Interest. Health interests include those health areas of concern or awareness for which the individual gives special attention.

3. Perceived Health Need/Problem. For the purposes of this study, perceived health needs/problems refer to the awareness of the individual of a lack or deficiency of some factor related to his/her well-being. This health need/problem interferes with the individual's ability to carry out normal responsibilities in the community.

IX. ORGANIZATION OF THE STUDY

This investigation is divided into seven chapters. Chapter I includes an introduction, purpose of the study, statement of the problem, need for the study, assumption, hypothesis, delimitations, limitation, and a definition of terms. Chapter II consists of a review of related literature composed of problems and needs of the aged, retirement, and preretirement preparation programs. Chapter III is concerned with a presentation of the procedure of the study. Chapter IV is a presentation of an analysis and interpretation of the data collected for the study. Chapter V presents a summary, findings, conclusions, and recommendations for future programs and components of programs designed to help identify and meet the perceived health needs/problems and interests of those preparing to retire. Chapter VI is a presentation of the suggested health education and information component for preretirement programs. Chapter VII is an epilogue.

CHAPTER II

A SURVEY OF RELATED LITERATURE

Aging is a relative process, highly individualized and composed of several dimensions. Birren stated that an individual has a biological age, a psychological age, and a social age (5:16). The biological age refers to the years the individual has left to live while psychological age refers to the person's perceptual and learning abilities as related to his/her age. Social age is concerned with the social roles the individual assumes in society. Beattie added a fourth dimension of aging, the chronological (3:1). This refers to the actual number of years the person has lived and is an individualized process. These four dimensions of aging enabled the researcher to achieve a better perspective and understanding of the aging process as it affected each man and woman.

The aging process is inevitable and continuous, initiated at conception and terminated in death. Man is living longer and enjoying an improvement in the quality of his life due to advancements made in the environment, nutrition and health-care systems. These advancements, while increasing life expectancy, have created the difficulty of determining the commencement of old age. To help clarify this dilemma, Cowgill has made the following generalizations:

1. Various people defined the beginning of old age all the way from 45 years to 70 years of age.

2. There is a strong predilection toward the use of multiples of five in stating the age at which old age begins.
3. The most commonly designated years appear to be 60 and 70.
4. Obviously there is no single, natural, or universally valid age for the beginning of old age.
5. The age which is designated as the beginning of old age varies with the culture and is relative to the state of general health.
6. More recent definitions tend to set somewhat higher ages for the onset of old age. (18:31)

Accompanying the aging process comes the certainty of retirement from one's occupation. The transitional period that retirement implies can be viewed as a threat to the well-being of the individual or an occasion that was looked forward to with great anticipation. The aged citizens will be confronted with problems and situations that interfere with their well-being, thus, preparation for their retirement is essential in order for them to cope with and seek solutions to their problems. Therefore, programs to prepare the retiree for the transition can enable him/her to enjoy successful aging.

In order to partially understand the aging process as it affects men and women, the literature review that follows is categorized: Problems and Needs of the Aged; Retirement; and Retirement Preparation Programs.

I. PROBLEMS AND NEEDS OF THE AGING

One immediate concern faced by the gerontological researcher is that of finding an acceptable theory of aging. Two major theories have surfaced and appear at opposite ends of the continuum. These are the Activity theory and the Disengagement theory.

The Activity theory as expressed by Havighurst, Kutner, and Neugarten suggested that, ". . . for optimal adjustment social growth and expansion should continue as much as possible from middle age into old age" (28:8, 55:317). This theory recommends that the aging man or woman continue in their usual activities and not alter their social engagements simply because they are growing older. However, Cumming and Henry disagreed with the Activity theory and attempted to explain the social and psychological aspects of aging through the Disengagement theory. This theory stated:

> Disengagement is an inevitable process in which many of the relationships between a person and other members of society are severed, and those remaining are altered in quality. (19:211)

They also stated that disengagement was universal and beneficial to both the individual and society (19).

Youmans compared the concept of disengagement with that of life course. The life course concept states that each person goes through several stages of development; infancy, childhood, young adulthood, maturity, and old age. He stated that the Disengagement theory was not broad enough to explain the aging process. Youmans found the disengagement theory to lack empirical support and recommended modification based on longitudinal studies to develop a more acceptable theory of aging (66:257). Itzen has stated that many gerontological researchers raised questions which threaten the validity of the Disengagement theory. These questions are: (a) Is disengagement inevitable? (b) Is disengagement universal among older people? (c) Is disengagement progressive throughout old age? (d) Is age

the crucial factor in disengagement or is it incidental? (33:159) Havighurst, as a proponent of the Activity theory, stated that disengagement did occur but it happened as a result of society's withdrawal from the aged person against his will (28).

Hamlin rejected both the Disengagement and Activity theories, creating his own Utility theory, which in reality is close to the Activity theory. Advocating his Utility theory of aging, he stated, "The Utility theory emphasizes programs. A pattern of some sort channels energy and puts it to use. Otherwise energy dissipates and disintegration follows" (26:38).

In response to the question, "What are the needs of the elderly?" Field quoted an old woman as saying:

> We need what every human being needs—enough money to meet our expenses, to be able to pay the doctor when we are sick, a place to live, something to do, someone to do for, and someone to care. (22:11)

This quote identifies the older person as a human being, with the same basic needs as a younger person, something that is often forgotten. The interaction and compounding of many of the needs of the aged citizen produces situations and circumstances which make successful aging more difficult.

Income

A report of the White House Conference on Aging of 1971 stated that inadequate income and a reduced economic level for today's aged is the major source of many problems they face. With the economic situation as it is for the aged, it is a very powerful force that affects the daily life of the individual and the family (38:27).

Brotman stated that, "No matter which set of criteria is used as the basis for counting the poor, the aged easily qualify as the nation's major poverty group" (8:10). Utilizing the level of $3,000 per year as set by the Council of Economic Advisors in 1967, he indicated that 42 percent of those sixty-five and over are below the poverty level. In addition, he stated that for the aged, who account for 16 percent of the nation's poor, retirement, inflation, plus other factors have created serious economic problems for which no immediate solutions are available (8:10-11). Retirement planning can offer a partial solution to the financial hardships confronting most retirees. If one initiates preparation for retirement early enough, then the economic burden can be somewhat alleviated.

Transportation

Related to and compounded by low income is the problem of transportation. Byerts reported that at the 1971 White House Conference on Aging, the older citizens ranked transportation as their third most serious problem next to income and health. No matter where the aged citizen lived, rural areas or inner city, transportation was found to have exercised a variety of influences on the aging:

> . . . transportation exerts powerful influences on mobility and therefore upon ability to satisfy maintenance needs as well as those for autonomy, sociability, service and personal development. The secondary effects of transportation may be reflected not only in health, nutrition, injury rate and travel behaviors, but also in self-concept, disengagement, alienation and anomie. (10:11)

A report of the White House Conference on Aging stated that those situations contributing to the transportation problems of older citizens were housing in areas not served by public transit and a system oriented toward the private automobile (65:1).

Housing

The housing problem that confronts the aged citizen is tremendous. McGuire substantiated this in the following statement:

> . . . the need was in the multi-million unit category. This need, we estimated, was to provide decent housing for the nearly three million older people living in what we called "deficient" housing (housing classified by the Census Bureau as dilapidated, deteriorating, or found by "lacking some or all facilities") for the over two million elderly who lived with their children—primarily because they could not afford to do otherwise; and for the millions of older people living in standard housing which often is not considered suitable to their advanced years. Large numbers of elderly people also are among those displaced by urban renewal and other governmental actions—and for them, obtaining suitable housing is not a matter of choice but an immediate necessity. (43:10)

Minority Groups

The aged in minority groups constitutes a large number of persons. Kent found minority groups in this country approached seven million persons. This seven million was made up of a variety of ethnic or racial groups and often were found not sharing equally in the economic and health related benefits available to others of this nation (38:27). Clark indicated that the minority aged tend to seek housing in the inner city, thereby creating serious problems for themselves (16:58). Kent stated the difficulties minorities encountered related to the

basic needs of every human being: adequate housing, food, medical care, and a variety of other necessities required for the well-being of the individual and family (38:27).

Widowhood

Lopata studied widows as a minority group and reported that there were approximately nine million widows in this country with a median age of 67.8 years, most with little formal education and most were likely to be poor (42:72-73). She identified seven reasons why widows were recognized as a minority group and thus were discriminated against. These were: (1) widows were handicapped by not having a mate; (2) friends avoided them so as to ignore the subject of death and grief; (3) their sex; (4) most were older and suffered from prejudice and discrimination confronting older people in a youth oriented society; (5) they were frequently members of other ethnic or racial minority groups; (6) poverty; and (7) ignorance (42:67-70).

Pihlblad and Adams pointed out that widowhood was, ". . . one of the major crises in later life, often associated with grief, loneliness, and loss of satisfaction with life" (48:325). They stated, however, that with the passage of time, reconciliation with their nonmarital status occurred (48).

Cumming and Henry indicated widowhood to be less difficult for women than retirement for men because the widow's status increased in society while the man's status in retirement decreased (19).

Accidents

Accidents constitute a serious threat to the health and well-being of the aged American. Lawton reported that accidents killed twenty-five thousand and injured three million persons age sixty-five and over each year (40:96). Chinn and Robins reported that accidents were the third leading cause of death for aged males while for aged females accidents ranked fifth (14:221). According to Lawton, along with the aging process, deterioration of various functions of the body, plus disease and impairment created the likelihood of the high accident rate for the aging citizen. Accidents for the aged were most commonly found to fit into four categories: falls; motor vehicles; "caught in, pinched, or crushed" (females); and machinery (males). Prevention oriented programs and improvements in the environment of the aged were recommended for the reduction in the incidence of injuries and fatalities to the older Americans (40).

Nutrition

Food is essential to man's very existence and good eating habits established early in life and continued through the lifetime of the individual contributes to the well-being of the person. Balabokin stated that, "Good nutrition is as important to the elderly as to the child and clearly affects mental alertness" (2:22).

Research has shown various nutritional deficiencies to exist in the aged population. Osborn indicated that dietary surveys revealed a decrease in nutrient intake for the older citizen. In addition, she

stated that the "Recommended Daily Allowances" were frequently below the suggested levels necessary for good health (46:235-240).

A report of the White House Conference on Aging reported that many factors were responsible for poor nutrition. These included: inadequate income, apathy toward preparing and eating meals alone, inability to plan balanced meals, difficulties in shopping, misconceptions about food, housing, transportation, and state of the aged's health (59:17-18).

In President Johnson's message on Older Americans in 1967, he advocated several measures designed to eliminate or at least ease the nutritional deficiencies found to exist among the aged. These included programs such as "meals-on-wheels," senior centers serving older people, cafeterias operated by and for the elderly, education programs and research on the nutritional needs of older people, and supplying special diets (21:20).

Health

The problems and needs of the aged discussed up to this point have a profound effect on the health of the aged citizen. The interaction of the psychological, biological, and sociological concerns that affect the aged must be considered to be an intrinsic part of their total health problem. Due to a deprivation of the needs of the aged, their mental and physical health is one of their primary worries.

Brody and Brody reported on a television program where the aged could phone in and ask questions pertaining to their needs. They found health and health entitlements, mostly economic aspects of medical care the needs most frequently expressed (6).

Lenzer utilized the definition of health as the ability to carry out normal roles in his research related to the health status of the aged. He found only 5 percent of persons sixty-five and over were so ill they had to be confined to an institution (41:63). Shanas found that about 88 percent of all older people were neither bedfast, institutionalized nor home-bound (52:240). However, chronic diseases took their toll of older people with heart disease, stroke, and cancer accounting for three-fourths of all deaths among persons sixty-five years of age and above. In terms of disability, Lenzer found heart conditions, arthritis, and rheumatism were the major debilitators of approximately 43 percent of those sixty-five and over (41:63-64).

Brody reviewed the health status of the aged in relation to its affect on the activities the aged engaged in. He stated:

> . . . that while 81% of the over 65 suffer some chronic illness, 33% have no physical limitation on their activities; 7% have some limitations, but not on their major activities, 26% have limitations on major activities; and about 16% are unable to carry out their major activities. Thus, approximately half of the elderly are somewhat disabled because of a chronic illness. (7:413)

He reported that with advancing age, psychosis, psychosomatic disorders and organic mental disorders increased. This increase of mental impairments produced limitations for 10 to 25 percent of the aged (7). Bennett quoting Rosen indicated that persons sixty-five and above occupied approximately 30 percent of all public mental hospital beds (4:191).

Brody recommended restructuring the present health care delivery system through establishing goals and comprehensive health legislation

for a comprehensive health care delivery system to better conform to and help relieve the health problems of the elderly (7:417). Coe, in agreement with Brody advocated reorganization of the preventive practice portions of the traditional medical care delivery system for the aged. His reorganized system included: (1) an organizational system that promotes comprehensive health care; (2) a financial program, national in scope and provisions for medical prepayments; and (3) health education programs to help meet the needs of the aged (17:347).

II. RETIREMENT

The concept of retirement in this country is of recent origin. Jaffe has explained how retirement was possible in a modern society but highly improbable in a primitive unindustrialized civilization (34:1-6).

Carp indicated that retirement has multiple meanings and because of this it should be viewed as three different phenomena: an event, a process, and a status (12:9). Retirement as an event, denoted a turning point and change in the retiree's life while as a process it continues on within the person over a period of time. Retirement, as a status, referred to the situation the retiree found himself in and lasted until death. Carp stated that retirement was not an immediate occurrence, but was a transitional change that extended over a period of time. This transitional period, from employment to unemployment in the retiree's life, has contributed to the problems and difficulties that confront him. In addition, Carp found that retirement meanings extended to both ends of the continuum. These were:

> . . . the end of individual worth and social contact, a haven of rest, relief from an unpleasant, over-taxing, or health-draining job, or completion of commitment to society and initiation of self-realization. (12:8)

Simmons reported that our society has changed and this has created two kinds of retirement (54:22). One was the technological or occupational retirement which was related primarily to the chronological age of sixty-five. The second was psychological retirement which occurred when the person resigned from life. Psychological retirement was related to age yet was highly individualized.

Cumming and Henry viewed retirement as, "society's permission to men to disengage" (19:146). They listed three problems which arose from disengagement:

> First, they cannot move to pure sociability, because that is characteristic of women. . . . The second retirement problem is loss of status identity. The third problem . . . is the loss of a peer group. (19:147)

Jourard expressed the difficulty men had in retirement in that their, ". . . very sense of identity is rooted in their occupational role" (35:85). He later stated that with the loss of the occupational role, depression, a loss of spirit, set in along with numerous negative mental and physical conditions (35:85). Gersuny observed that retirement was degrading to the male because of the viewpoint society held of the man without an occupational role (25:283).

Shanas reported retirement occurred for a variety of reasons which included:

> . . . they reach a compulsory retirement age and retirement is required; because their jobs vanish with automation or plant shutdown; because their health is poor or they find the job too tiring; . . . others just do not want to work anymore. (51:19-20)

Jaffe indicated that most men who have retired from their jobs did so for involuntary reasons. If they had been given the choice, a majority of retirees would have delayed their retirement well beyond age sixty-five. He found ill health, old age, and job related reasons were responsible for the retirement of most men age forty-five to sixty-four (34:15). Related to this was the point that even though ill health was the main reason most men retire, retirement did not create poor health for those who were already in retirement. Hart has shown that the health of retirees improved. In addition, he has indicated that mortality was lower in the period immediately following retirement than it was in later life. Also some evidence has been provided to indicate that for those who have retired early, prior to age sixty-five, mortality rates were lower than for those who retired at sixty-five (27:738).

Heyman stated that retirement patterns for men and women were different. She indicated that a wife retired as often as three times within her lifetime as compared to the male who usually retired only once (29:54). Palmore offered five differences existing in the retirement patterns of men and women:

1. Women retire more than men.
2. Women retire for voluntary reasons more than men.
3. Men in the higher-paid occupations retire less than other men, but women's retirement rates show little or no differences by occupation.
4. Married men retire less than the nonmarried; but married women retire more than the nonmarried.
5. Retirement is steadily increasing among men but not among women. (47:6)

A report of the White House Conference on Aging stated there has been a trend toward either early or late retirement. Early retirement, retirement prior to age sixty-five, was taken by fifty-three percent of all retirees in 1966. Multiple reasons were found for taking early retirement: severe illness, adequate income and financial resources, continuous unemployment, and in some instances, company enticement through bonus systems. Late retirement, later than age sixty-five, was taken for reasons which included: self-employment, satisfaction with the job, and educational attainments which have permitted the employee to remain on the job for an extended period of time (61:5).

Jaffe indicated that retirement rates for the decades 1950-1960 and 1960-1970 were twenty-three per one hundred (34:7). He reported there were factors which either increased or decreased retirement rates and these were in operation now and would affect retirement rates in the next two or three decades to come. He stated that two factors were responsible for an increase; one, the shifting age composition toward a younger population, thus, increasing the proportion and number of younger men making the job market difficult to enter and forcing older workers to retire. The second factor that increased retirement rates was that of a failure of the nation's economy to operate at a high enough level creating the situation of an inadequate number of jobs for everyone forcing older men to retire. Two factors were shown to cause a decrease in retirement rates; one, an increase in part-time work or "leisure through life movement" where leisure time would

be interspersed through working ages and not concentrated in the later years of life. The second factor was the increased level of education for men which would allow them to remain in the labor force for a longer period of time. An additional factor was women who have entered the work force in increased numbers which could cause either an upward or downward movement of retirement rates. The influence of this factor was said to be obscure at that time (34:71-73).

Retirement, however, was found to be inevitable, much like the aging process itself. Powell stated that what was needed by those who have approached the time in their lives when they must consider retirement, were programs to prepare them for the transition and adjustment they would have to make. He emphasized that the time to prepare for retirement was prior to the event (49:347). Kent reported that retirement in the first year was vastly different than retirement many years later. Therefore, preparation for retirement must be given prior to and during the retirement years to assist the retiree in making the transition and adjustments necessary for a sense of well-being (37:54).

III. PRERETIREMENT PREPARATION PROGRAMS

Programs designed to prepare employees for retirement were found to have increased significantly in the past few years. Carp estimated that following World War II only about 10 to 15 percent of the companies in this nation had any type of retirement program. Today, however, 60 to 70 percent of the work force are covered by some form of

retirement program (11;213). Hunter provided the following conclusions regarding the trend in preretirement education:

1. The development of preretirement programs is a recent one which parallels closely the growth of pension programs following World War II. Larger industries tend more than smaller ones to offer the service.
2. There appears to have been an increase in the number of programs during the past decade, especially in the number of individual type programs, but the magnitude of the increase is difficult to determine. On the other hand, awareness of the program and interest in exploring its possibilities are fairly widespread. There appears to be more interest on the part of companies than labor unions.
3. Current programs exhibit extreme variability in content and methods. The individual approach predominates. Some programs consist of merely a single interview with an employee; some consist of several interviews; others consist of weekly group discussion sessions for as many as ten or twelve weeks. Emphasis is most frequently placed on financial matters. There appears to be a trend, however, in both individual and group programs toward including other topics for discussion.
4. There is little, if any, effort to control the quality of programs or to evaluate results. Companies tend to prefer to utilize their own staff including personnel officers, pension experts, or an industrial relations official to conduct the interviews or lead the discussions and few of them have developed any system for evaluating the effectiveness of their programs. Franke . . . suggests this is probably due to the fact that most companies do not view a preparation for retirement program as a major element in the management of the company.
5. Evidence of community involvement in company-sponsored programs is very meager. The fact has already been noted that most companies are concerned with discussing pension benefits with the employee rather than such topics as opportunities in the community for the effective use of leisure time or resources in the community to which the retired employee can turn for help. In the group discussion programs, however, these topics are more likely to be discussed and the company is more likely to request the assistance of staff people from Social Security and State Employment Service, public libraries and local recreation, adult education, and health departments to conduct the program. Under these circumstances one might expect considerably more orientation toward the community. (31:7-8)

A search of the literature provided the following information regarding the extent of preretirement preparation programs:

1. 1950—a survey of 355 companies revealed only 13 percent had a preretirement program (50:723).

2. 1951—a survey of the seventy largest companies in the nation revealed 37 percent had some type of program (61:38).

3. 1952—a study of 657 firms showed 54 percent had some type of program.

4. 1955—the National Industrial Conference Board reviewed 327 companies and found 65 percent had programs, but very few of these were organized.

5. 1959—of 505 firms, only 32 percent reported that they had a retirement counseling program (50:723).

6. 1964—a survey by the National Industrial Conference Board revealed 65 percent of 974 companies had some form of retirement counseling (61:38).

Monk found preretirement programs were generally categorized into either a limited program or a comprehensive program (44:64). The limited program consisted mainly of the financial aspects of retirement with the retiree being provided information related to pension benefits, insurance, and investments. The comprehensive program was found to include and go beyond the economical aspects of retirement with topics that included: health, psychological aspects of retirement, nutrition, housing, and leisure time pursuits.

Very few investigations have been made to determine the extensiveness of preretirement preparation programs. One study by Wermel and Beideman revealed that 25 companies out of 161 had programs which were labeled as limited, while the remaining 136 had comprehensive retirement preparation programs (50:723). Carp stated that about one-half of the industries with programs were limited only to information related to the company's pension plan and social security (11:213).

Kasschau stated that various studies have shown that many programs to prepare employees for retirement were poorly designed and implemented (36:42). The problem encountered was one of deciding whether the program was designed to counsel the individual or to help the employee plan for his/her retirement. She asked:

> Are they designed to develop favorable attitudes toward retirement and thereby promote good adjustment in retirement (in which case they might most properly be labeled retirement counseling programs) or are they, instead, meant to serve as an information-disseminating and stimulant-to-planning device (in which case retirement planning programs might be a more appropriate descriptive term)? (36:42-43)

Pyron stated that employers established programs to counsel or plan for retirement for the following reasons:

> . . . to increase the effectiveness of pension plans and, thereby, to help employees live a more successful retirement; to encourage older workers to retire, thus providing opportunities for younger workers; to improve employee and labor relations, particularly to remove the dissatisfaction of older workers facing mandatory retirement; to foster good community ambassadors; and to express a general feeling of growing social and economic responsitility toward the welfare of employees. (50:723)

Fillenbaum researched the problem of age as related to when preretirement preparations should be offered. She found the age group forty-five and above to have expressed the most interest and concern in

the preparation for retirement (24:33). She stated others have recommended fifteen to eighteen years prior to retirement as the best age to initiate programs (24).

Monk, however, suggested that preretirement programs should be structured in a three-stage sequence (44:47). The program's participants were to range in age from fifty to sixty-four with the first period limited to those aged fifty to fifty-four. This group was to receive information related to the normal processes of individual growth and development. The second stage was intended for those from age fifty-five to fifty-nine. Within this stage there was an assessment of the needs and potentialities of the individual; and counseling was used to provide for the development of new interests, second careers, and an emphasis on social participation. The third and final stage was designed for those who were age sixty to sixty-four with individual and group counseling focused on retirement itself.

Research into programs of preparation for retirement has increased in recent years. Various publications provided examples of programs, not only in industrial organization, but colleges, universities, and private groups. Christrup and Thurman reported on a preretirement program developed for the General Service Administration (15). A revised program emphasizing personal involvement and informality was instituted after initial attempts were unsuccessful. The program was voluntary and open to employees who were within fifteen years of retirement. Group size was restricted to twelve to twenty people with both the speakers and participants active in the group discussions.

The opening session was an orientation period, followed through the week by the psychological aspects of retirement, health maintenance, financial and legal planning, and life space planning. Various methods of evaluation showed the program to be successful in motivating the employees to plan for their retirement.

The Mead Johnson Company program was established in 1955 (20:64). The goal was to provide their employees with a review of the problems to be faced at retirement and to plan alternatives to meet those problems. Employees who were eligible for the program were within fifteen years of retirement, fifty for men and forty-seven for women. They were asked to attend eight sessions, one meeting every week for eight weeks. When an employee attended the first session, he was eligible for and was invited back five years later for a refresher course. Finally, just prior to retirement, the employee attended the entire eight sessions again. The sessions included topics related to the company's retirement income plan, social security, financial planning for retirement, insurance needs, employment opportunities, health, housing needs and leisure time activities.

Inland Steel Company instituted their preretirement counseling program in 1964 designed to reinforce the employees' desire and ability to plan ahead for the retirement years (1:97). The program consisted of five steps: (1) At age fifty-five, each employee received a letter with an invitation to interview with a counselor. (2) Age sixty was when a definite interview was scheduled and included the company's pension plan, employees' plans for retirement and problems

the employee was concerned about regarding retirement. (3) At age sixty-four, another review of the company pension plan and other benefits were discussed along with the latest plan of the employee for his/her retirement. (4) At age sixty-five, sixty days prior to retirement, a final review of the employee's retirement plans were made, and (5) this step consisted of the company's contacts with the retiree through letters, annual reports, and a company magazine with information regarding other retirees plus information thought useful to all retirees. No formal evaluation of the program had occurred at the time of publication of the article.

The Tennessee Valley Authority initiated their program in 1956. The voluntary program, held in the spring of the year, is open to those who have reached age sixty at which time an invitation is extended to attend the seminars. If an individual has planned to retire early, prior to age sixty-five, he requests permission to attend the sessions. The program consists of a series of six, two hour seminars, informal in nature with active participation by the participants. The seminars are attended once, but when an employee reaches sixty-four he is invited to attend a one-day session which is generally held in the fall of the year. Fields found that approximately 80 percent of those who were eligible attended the sessions, with time off from the job provided by the company (23). Evaluations of the program revealed that economic security, and social activities for those in attendance significantly improved while their health status did not show a significant difference. In addition, the program was a definite

success in terms of motivating people to prepare for their retirement (23, 56).

Oliver wrote on a public school approach to preretirement education (45). The school system initiated a project in preretirement education with groups of employees from three of the city of Niagara Falls, New York, major industries. The approach was a cooperative effort with the public schools, the university, and industry from the city. Their objectives included promoting an understanding of aging and retirement, equipping the individual with the knowledge of how he could prepare himself for retirement, and encouraging positive attitudes toward retirement based on a recognition of the opportunities for healthy and useful living.

Charles evaluated the program at the Drake University Preretirement Planning Center (13). A total of 368 subjects representing industrial, business, and government workers plus professional groups and citizens of the community participated in the seven two-hour sessions. Topics covered legal and financial aspects of retirement, health and welfare, changing roles, and continuing education. Results of an analysis of the data showed the participants to increase their concern about social security, Medicare, their health and leisure time activities. There was also an increase in involvement of the participants in various organizations and clubs.

Holley and Feild reviewed the steps utilized in the development of a retirement preparation program based primarily on the needs of retirees (30). Their initial step was to determine the goals of the

program along with a determination of the benefits to the retiree plus those to the organization. Retiree needs were assessed through questionnaires and interviews along with general published reports of retiree needs, but the main emphasis was the needs as identified by the employees themselves. Data gathered pertained to the seriousness of retiree problems and information needed by the retiree prior to his/her retirement. Retirees ranked health as their most serious problem, followed by financial matters, too much free time, lack of social contacts, food and nutrition, transportation, and housing. Information needed by the retiree prior to retirement was found to be related to health and financial concerns.

The program operated in the following manner: Age sixty was selected as the starting age for participation in the program. During the first year, the employee received a letter with an invitation to attend an orientation session related to the psychological aspects of retirement and the use of leisure time. The second year, at age sixty-one, discussion centered around health related and medical problems, review of the company's pension plan, and social security. The next year, employee's age sixty-two, topics related to personal finance, wills and estate planning, budgeting, and food and nutrition planning were discussed. The following year, age sixty-three, sessions focused on various types of insurance along with employment opportunities. Age sixty-four brought the retiree the last session related to Medicare.

Hunter reported on a longitudinal study of preretirement education in which he found that the program appeared to be most successful with

white subjects who had at least eight years formal education and were born in English-speaking countries. He did, however, state the findings to be inclusive. He further stated that future research should assess whether or not the effects of preretirement education wear off at the end of the second year of retirement as had been indicated in other studies (31).

In a study of preretirement education for hourly-rated employees, Hunter reported that the program did not significantly change the attitude of workers toward retirement, health, or income. However, a positive effect of the program was to increase the participant's preparation for retirement. He further stated:

> There results are also consistent with previous preretirement education research findings, which indicated that it was much more difficult to change attitudes than to disseminate information and influence retirement preparation. (32:37)

Carp indicated that some employers had objected to and were hesitant in establishing retirement preparation programs because they may tend to undermine employee morale, divert their job interest, and reduce production (11:213). Others have expressed the fear that the employee who had planned since middle age was overly prepared for retirement. This person who had planned ahead was viewed as manifesting feelings of insecurity or unhappiness with their present life. Therefore, in preparation they were expressing the thought that when they retired they would lead a problem-free life (9:94). In both of these cases involving objections to preretirement planning, the evidence does not support the claims.

Two reasons were advanced by Kasschau to explain the poor evaluation preretirement programs have received (26:46). One, the change in attitudes toward life and retirement were found to be improbable because of the short period of time spent in the programs. Most programs were found to last from two to three hours per week and cover a five to twelve week period. The second reason for a poor evaluation was a failure on the part of preretirement preparation programs to demonstrate a substantial change in attitudes toward retirement. The difficulty was that the programs were voluntary in nature and those with negative attitudes toward retirement were unlikely to attend the sessions; thus, those who were in attendance were already positively motivated to plan for retirement through a favorable attitude.

Hunter recommended the establishment of preretirement education programs to be based on the following:

1. The programs should create a permissive atmosphere in which participants are comfortable and free to express their concerns, interests, goals, fears, and expectations.
2. Participants should be encouraged to make the program their own. In other words, they should have the opportunity to accept, reject, or modify the overall topical plan which was initially presented to them.
3. Husbands and wives should be encouraged to share their views of retirement and to make joint decisions about the future.
4. Members of the group should be encouraged to recognize that the problems of aging are fairly common, and that a good many people share fears and concerns about retirement.
5. The program should provide opportunity for people to interchange ideas and experiences.
6. Misinformation and misconceptions about aging and retirement should be vigorously challenged.

7. Ample opportunity should be provided for members to acquire complete, accurate, up-to-date information about a variety of retirement situations. For example, it was decided that members of the preretirement groups should obtain accurate information about the amount of income from all sources they would have to live on in retirement.
8. The program should expose participants to the gamut of retirement problems and situations which has been found among older people in the United States.
9. Members should be made aware of different solutions to retirement problems and encouraged to select one or more solutions which seem to be appropriate as a basis for developing plans of action.
10. Members should be encouraged to put their decisions about the future into effect.
11. Participants should be given problem-solving experiences in the group.
12. The program should stimulate continued learning, planning and decision-making between sessions and following completion of the program.
13. Finally, the program should present a positive view of retirement and encourage participants to develop or reinforce an anticipatory attitude toward retirement. (31:13-14)

IV. SUMMARY

The literature review was designed to examine those aspects of the aging process which confront a majority of older citizens. Initially, the problems and needs of the elderly were identified with particular emphasis on those factors which have a profound effect on the health and well-being of the aged man or woman. Retirement was the next aspect of the aging process to be reviewed. The concept of retirement was examined for its relationship to the health and well-being of the retiree. The information found appeared to indicate that retirement had a positive effect on the health and well-being of the retired man or woman. Finally, programs designed to prepare men and women for

retirement were reviewed with an emphasis on examples of programs plus the effects of program participation. In addition, recommendations for program purposes were identified for use in the development of preretirement education programs.

CHAPTER III

PROCEDURE OF THE STUDY

The purpose of this investigation was the development of a suggested health education and information component for TVA's Program of Preparation for Retirement. This required the identification of the perceived health needs/problems and interests of TVA employees approaching retirement plus TVA retirees. A determination of the differences in the perceived health needs/problems and interests of TVA retirees and preretirees was also necessary in order to develop the suggested health education and information component. Therefore, the procedures required to complete the investigation were: identify a population; select a sampling procedure; determine the research design; develop an instrument to generate the data required for use as a basis in the development of the health education and information component; and develop the health instruction component of the preretirement program. This chapter is divided into sections related to: (a) the population, (b) sample selection, (c) instrumentation, (d) administration of the instrument, (e) the statistical treatment and data analysis, (f) summary.

I. POPULATION

The population consisted of Tennessee Valley Authority employees who were approaching retirement and employees who have retired. The

population approaching retirement included those employees who were born between the years of 1911 and 1920. Therefore, their ages ranged from fifty-four to sixty-four. Age fifty-four was selected since all in the sample would reach their fifty-fifth birthday before the year was over; fifty-five is the earliest one can retire from TVA for nonspecial reasons. Age sixty-four was selected because this was the last full year one would be employed with TVA prior to mandatory retirement at age sixty-five.

The retired population included TVA employees who had been retired for not longer than five years. Therefore, those who had retired from TVA between 1970 and 1974 were included in the study. This time limit was chosen to minimize the effect of advancing age and increasing physical and mental impairments on the response rates to the questionnaire. Also, the accuracy of the lists of retirees and their addresses was found to be more precise when confined to a five-year period of time. TVA requested that the list of retirees be examined by their retirement branch to eliminate those retirees who had retired for disability reasons. Clerical assistance was provided by TVA for finalizing the lists of retirees from which a sample was chosen.

II. SAMPLE SELECTION

Contact was made with the chief of TVA's employee development staff to procure a listing of employees approaching retirement. These names were obtained from employees' records and printed out by TVA's computer system. This population consisted of 2,777 subjects, 89 percent men and 11 percent women.

Contact was made with the chief of the retirement service branch of TVA for a listing of retirees. These lists consisted of 1,884 subjects, 90.5 percent men and 9.5 percent women who retired from TVA between May, 1970, and December, 1974.

Sample size was determined by using the National Education Association's Small Sample Technique to insure the selection of a representative sample population (42:607). The formula is as follows:

$$s = X^2NP\ (1 - P) \div [d^2\ (N - 1) + X^2P\ (1 - P)]$$

where

1. s = required sample size
2. X^2 = the table value of chi-square for 1 degree of freedom at the desired confidence level (3.841)
3. N = the population size
4. P = the population proportion (assumed to be .50 since this would provide the maximum sample size).
5. d = the degree of accuracy expressed as a proportion (.05)

The calculated size of the samples required for this study was 338 employees approaching retirement and 319 retirees. In order to insure a proportional representation of men to women, the random samples were proportionally drawn according to sex. A result of the selection of 338 employees was 37 women and 301 men. The retirees selected had 289 men and 30 women for a total of 319 respondents.

As this was a mail-out questionnaire and since the pretest revealed retirees response to be minimal, an oversampling was made for each sample

population. For retirees, 497 questionnaires were sent, 450 to men and 47 to women. Employees approaching retirement received a total of 427 questionnaires of which 380 were sent to men and 47 to women.

After receipt of the computer list of employees, each name was assigned a number from 1 through 2,777. The lists of retirees were numbered from 1 through 1,884. Next, a table of random numbers was consulted from which the random proportional samples of men and women were chosen from employees and retirees. The mailing address for those selected was obtained from a TVA directory.

III. INSTRUMENTATION

The instrument developed by the investigator was a questionnaire with both open and closed forms of questions. The questionnaire was designed to elicit information regarding: (a) demographic and socioeconomic data, (b) interest in and perceptions about health, (c) TVA's present program structure, (d) perceived health needs or problems, (e) perceived health interests, and (f) considerations for program development. A complete instrument is found in Appendix A.

After completing the initial draft of the instrument, it was distributed to a jury for their consideration, recommendations, and comments regarding construct and content validity. A list of the jury members is in Appendix B.

Following the return of the instrument from the jury, the questionnaire was modified based on the recommendations of the jury to improve its validity. Next, a pilot administration was conducted.

The instrument was administered to a small group of employees and retirees of TVA selected at random from the same lists from which those in the final sample were chosen.

The pilot administration served to identify difficulties encountered in completing the instrument by the sample populations. In addition, response rates for both samples were monitored to determine how much oversampling was necessary for the final distribution of the instrument to the study populations. Following the return of the questionnaires from those in the pretest, the data were organized and analyzed to determine scoring, coding and interpretation. Modifications were made for the final draft of the instrument in preparation for application to the study populations.

IV. ADMINISTRATION OF THE INSTRUMENT

The final draft of the instrument was mailed to the samples chosen from TVA employees and TVA retirees. A cover letter printed on TVA stationery was included, explaining the purposes of the study plus the importance of the return of the completed questionnaire to the investigator. The cover letter included TVA's support of the study along with the signature of the chief of the employee development staff.

Complete confidentiality of responses was guaranteed. Instructions for completion and return of the questionnaire were attached to the questionnaire itself. Respondents were instructed to return the completed

instrument to the investigator no later than the deadline specified in the cover letter. The deadline for the initial mailing was March 18, 1975. An addressed envelope was enclosed with each questionnaire for direct return to TVA. A copy of the cover letter is in Appendix C.

Each questionnaire was given a code number in order to determine who had and who had not returned the questionnaire for the purpose of follow-up. Follow-up for those who had not responded by the initial deadline included a second mailing of the questionnaire plus a new cover letter. The second cover letter is included in Appendix C. The deadline for the second mailing was April 7, 1975.

After receipt of the completed questionnaires, they were hand scored and the results transferred to data sheets. The data were then punched on computer cards.

V. STATISTICAL TREATMENT AND DATA ANALYSIS

The statistical treatment and analysis of the data were dependent upon the questions in the questionnaire. The questions were categorized into five groups: (1) the identification and description of demographic and socioeconomic characteristics of the samples, (2) the determination of interest in health and perceptions about the respondents' health, (3) the determination of opinions about TVA's present Program of Preparation for Retirement, (4) the identification and determination of differences in the perceived health needs/problems and interests of the two samples, and (5) the determination of procedures and format to be incorporated into the program.

VI. DEMOGRAPHIC AND SOCIOECONOMIC CHARACTERISTICS

The data collected related to demographic and socioeconomic characteristics included the following factors:

1. employment status
2. sex
3. marital status
4. age
5. family income
6. educational level
7. occupation

The questionnaire resulted in nominal level data which required nonparametric statistics for analysis. Each factor was recorded for each respondent and tabulated in a frequency table. The frequency table was utilized to determine percentages for each characteristic. These factors were also presented and discussed by employment status.

VII. INTEREST IN AND PERCEPTIONS ABOUT HEALTH

The questions which related to the subjects' interest in health and their perceptions concerning their own health status were tabulated and reported in frequency tables and percentages. The response and frequency of response were recorded and presented in tabular and percentage form by employment status. Factors considered in this category were:

1. evaluation of present health status
2. rating present health status
3. interest in health by reading
4. interest in health as manifest in listening to radio or watching television programs about health
5. interest in health by attendance of community programs

VIII. TVA'S PRESENT PROGRAM OF PREPARATION FOR RETIREMENT

The questions related to TVA's present Program of Preparation for Retirement were as follows:

1. program attendance
2. opinions of relativity to successful retirement
3. opinions of adequacy of present program
4. ranking concerns in preretirement planning

Response and frequency of response were tabulated and reported in tabular and percentage form according to employment status.

Question 16 required a ranking of seven areas of preretirement planning. Respondents were asked to rank the seven topics from the most important (1) to the least important (7). These were tabulated and a mean ranking was computed. The topics were presented according to rank by employment status.

IX. PERCEIVED HEALTH NEEDS AND INTERESTS

The determination of differences in the perceived health needs/problems and interests of TVA retirees and employees approaching

retirement was performed by utilizing the Chi-Square test for two independent samples. Following the selection of perceived health needs/problems and interests by both samples, the null hypothesis that there was no significant difference between the two groups was tested by the Chi-Square test. The null hypothesis was rejected if the perceived health needs/problems and interests of TVA retirees significantly differed (.05 level) from the perceived health needs/problems and interests of TVA employees approaching retirement. Yates Correction for Continuity was applied to all 2X2 Chi-Square tables.

The type of response, frequency of response and total number of responses to the identification of perceived health needs/problems and interests was determined and presented in tabular and percentage form. The same procedures were performed to identify perceived health needs/problems and interests according to employment status. In addition, the subjects were asked to rank their first five greatest health needs/problems and interests. These were presented in rank order from their first to their fifth greatest health need/problem and interest. Also, these were reported by total number and percent by employment status.

X. CONSIDERATIONS FOR PROGRAM DEVELOPMENT

The development of the health education and information component of TVA's Program of Preparation for Retirement involved several steps. Initially, TVA's present program was examined to determine what constitutes the program plus the procedures and materials utilized

in its presentation. Next, recommendations for program format, objectives, and program development from related research were examined for possible inclusion in the development of the health education component. In addition to the identification of perceived health needs/problems and interests which made up the content of the program, the questionnaire provided information regarding the following:

1. use of other organizations in presenting the program
2. time of presentation of program prior to retirement
3. techniques or methodology to utilize in presenting the program
4. ranking techniques or methodology
5. opinions of relevance to health needs/problems and interests

Responses to these questions were tabulated and presented in frequency tables and reported in percentage form by employment status. Question 25 which required a ranking of the first three most preferred techniques or methodology were reported by the popularity of response, total number, and percentage by employment status.

XI. SUMMARY

This chapter gave a description of the procedures utilized in the completion of the study. The population included TVA employees approaching retirement and TVA retirees. Utilizing the NEA Small Sample Formula, the calculated required sample size was 338 employees and 319 retirees. However, since this was a mail-out questionnaire, an oversampling was made; 427 employees' and 497 retirees' names were selected at random and mailed questionnaires.

The data generated by the questionnaire were analyzed and statistically treated using frequency tables and percentages. The null hypothesis was tested by the Chi-Square test for two independent samples. The data from the questionnaire plus materials, personnel, and procedures from TVA's present program and recommendations from related research were utilized in the development of the health education and information component of TVA's Program of Preparation for Retirement.

CHAPTER IV

ANALYSIS AND INTERPRETATION OF THE DATA

This chapter presents the analysis and interpretation of the data compiled from 674 subjects, 338 employees and 336 retirees. The findings are discussed as follows: (1) demographic and socioeconomic characteristics, (2) interest in and perceptions of health status, (3) TVA's Present Program of Preparation for Retirement, (4) perceived health needs/problems and interests, (5) considerations for program development and (6) summary.

I. DEMOGRAPHIC AND SOCIOECONOMIC CHARACTERISTICS

The required number of questionnaires necessary to complete the study was 338 from employees and 319 from retirees. Employees received a total of 427 and returned 338 for a response of 79.2 percent. Retirees received a total of 497, returning 336 for a return of 67.6 percent. These totals were reached after a second mailing of the questionnaire to those who had not responded by the initial deadline.

Of the 427 questionnaires sent to employees, 380 were mailed to men and 47 to women. Of these totals, 299 men, 78.7 percent, and 39 women, 83.0 percent, completed and returned the questionnaire. Therefore, the employee sample was composed of 88.5 percent men and 11.5 percent women. This proportional return by employees was almost

identical to the proportion of men, 89.0 percent, to women, 11.0 percent in the employed population. See Table 1.

TABLE 1

EMPLOYMENT STATUS OF THE SAMPLES BY SEX

Employment Status	Sex of Respondents				Totals	
	Male		Female			
	F*	P**	F	P	F	P
Employed	299	88.5	39	11.5	338	100.0
Retired	304	90.5	32	9.5	336	100.0

*F = Frequency

**P = Percentage

Retirees received 497 questionnaires with 450 mailed to men and 47 to women. Men retirees completed 304, 67.6 percent and women 32, 68.1 percent, of the total mailed to retirees. Of the questionnaires returned by retirees, men composed 90.5 percent and women 9.5 percent of the sample. This is identical to the proportion of men to women in the total retired population.

A summary of the marital status of the subjects is presented in Table 2. The majority of both samples were married at the time of the study. Of the employee sample, 91.7 percent were married, while 90.1 percent of the retirees were married. Employees who were single composed 4.4 percent of the employed sample and retired singles comprised

TABLE 2

MARITAL STATUS OF THE SAMPLE BY EMPLOYMENT STATUS

Employment Status	Marital Status										Totals	
	Married		Single		Widowed		Separated Divorced		Response			
	F	P	F	P	F	P	F	P	F	P	F	P
Employed	310	91.7	15	4.4	8	2.4	5	1.5	0	0	338	100.0
Retired	302	89.9	8	2.4	20	6.0	5	1.5	1	0.3	336	100.0

F = Frequency

P = Percentage

2.4 percent. Separations and divorces accounted for 1.5 percent of each sample's total. As was expected, more of the retired sample were widowed, 6.0 percent, as compared to 2.4 percent of employees.

Since a majority of both employees and retirees are married, the point can be made for the attendance of the spouse. When the spouse is permitted to attend the program, the opportunity is presented for both of them to explore together their upcoming retirement and hopefully, provide both with information to assist in their adjustment and transition into retirement.

The age distribution of the two samples has been subdivided by employment status and is found in Table 3. The age distribution indicates that 59.2 percent of the employee sample were in the age group fifty-five to fifty-nine. The next largest age group were those age sixty to sixty-four with 26.3 percent of the employed sample. The smallest age group represented by employees were those sixty-five to sixty-nine with three subjects. This age category for employees is naturally small due to TVA's mandatory retirement for employees at age sixty-five.

For the retired sample, the largest age group were those sixty-five to sixty-nine with 59.5 percent of the retiree sample. When the age categories under age sixty-five were combined, 39.3 percent of retirees had retired prior to mandatory retirement age. The seventy and over category had only one subject in the retiree sample. Of the total sample, a majority of the respondents, 91.5 percent were within fourteen years of each other in age.

TABLE 3

AGE DISTRIBUTION OF SAMPLE POPULATION
BY EMPLOYMENT STATUS

Employment Status	Age Groups												Total	
	Under 55		55-59		60-64		65-69		Over 70		No Response			
	F	P	F	P	F	P	F	P	F	P	F	P	F	P
Employed	45	13.3	200	59.2	89	26.3	3	.88	0	0	1	.29	338	100.0
Retired	7	2.1	21	6.2	104	30.9	200	59.5	1	.29	3	.89	336	100.0

F = Frequency

P - Percentage

The total yearly family income of the samples is depicted in Table 4. The employed sample, as expected, had more individuals in the higher income ranges. In the employee sample, 88.7 percent had incomes of more than $10,000 with 41.1 percent of the total in the over $20,000 income category. Of the retiree sample, 60.4 percent had a family income of more than $10,000 with a majority, 26.5 percent, in the $10,001 to $15,000 income range. Less than 1 percent of the employed sample earned below $7,000 while 17.6 percent of the retired sample earned $7,000 or less. With $3,000 recognized as a minimum poverty level income, 1.2 percent of the retired sample indicated they earned less than $3,000 per year.

The educational attainment of the subjects is provided in Table 5. There was no appreciable difference in the educational levels of employees as compared to retirees. Of the subjects who had not completed high school, 23.4 percent were in the employee sample, and 21.4 percent comprised the retiree sample. High school graduates accounted for 28.1 percent of the employees' sample and 24.0 percent of the retired sample. Employees who had some college composed 19.2 percent of their sample while 22.3 percent of the retired sample had some college education. College graduates or higher amounted to 20.3 percent of employees and 31.2 percent of the retired sample.

The occupation of the samples by employment status is presented in Table 6. Graduate engineers and those in top management positions made up the professional category. Professionals composed 19.5 percent of employees and 20.2 percent of the retired sample. The largest totals

TABLE 4

TOTAL YEARLY FAMILY INCOME OF THE SAMPLE
BY EMPLOYMENT STATUS

Employment	Total Yearly Income														Total	
	Under $3,000		$3,001 $7,000		$7,001 $10,000		$10,001 $15,000		$15,001 $20,000		Over $20,000		No Response			
	F	P	F	P	F	P	F	P	F	P	F	P	F	P	F	P
Employed	0	.00	1	.29	36	10.6	103	30.4	58	17.2	139	41.1	1	.29	338	100.0
Retired	4	1.2	55	16.3	68	20.2	89	26.5	67	20.0	47	14.0	6	1.8	336	100.0

F = Frequency

P = Percentage

TABLE 5

EMPLOYMENT STATUS OF THE SAMPLE BY HIGHEST LEVEL OF EDUCATIONAL ATTAINMENT

Employment Status	Highest Educational Level Attained																Total	
	0-6		7-9		10-11		High School Graduate		College 1-3 yrs.		College Graduate		Post Graduate		No Response			
	F	P	F	P	F	P	F	P	F	P	F	P	F	P	F	P	F	P
Employed	17	5.0	43	12.7	17	5.0	95	28.1	65	19.2	74	22.0	25	7.3	2	.59	338	100.0
Retired	9	2.6	34	10.11	29	8.6	79	24.0	75	22.3	81	24.1	24	7.1	5	1.48	336	100.0

F = Frequency

P = Percentage

TABLE 6

OCCUPATION OF THE SAMPLE BY EMPLOYMENT STATUS

Employment Status	Occupation										Total	
	Trades and Labor		Clerical		Sub-professional		Professional		No Response			
	F	P	F	P	F	P	F	P	F	P	F	P
Employed	118	34.9	30	8.88	107	31.6	66	19.5	17	5.0	338	100.0
Retired	94	27.9	40	11.9	124	36.9	68	20.2	10	2.9	336	100.0

F = Frequency

P = Percentage

were included in the subprofessional and trades and labor categories. Subprofessionals primarily consisted of technicians such as engineering aides and draftsmen. Of the employee sample, 31.7 percent were subprofessionals while 36.9 percent of retirees were in this category. The trades and labor category included blue collar workers and comprised 34.9 percent employees and 28.0 percent of the retirees' sample. The smallest occupational category were those in the clerical group. This group was dominated by women with 8.9 percent of the employee sample and 11.9 percent of the retired sample being female.

II. INTEREST IN AND PERCEPTIONS ABOUT HEALTH STATUS

An attempt was made to determine the subjects' perceptions of their health status plus their interests in health. The subjects were asked whether or not they felt healthy enough to carry out the activities they wanted. The results of this question are presented in Table 7. A high percentage of the total sample, 90.0 percent, responded positively to the question. Employees with 93.5 percent of their sample and 86.3 percent of the retirees' sample responded that they were healthy enough to perform the activities they wanted. Those who stated that their health interfered with their normal activities consisted of 6.2 percent of the employee sample and 13.4 percent of retirees.

Although a majority of both samples indicated their health status did not interfere with their activities, application of the Chi-Square

TABLE 7

EMPLOYMENT STATUS OF THE SAMPLE BY THEIR HEALTH

Employment Status	Healthy Enough to Perform Normal Activities						Total	
	Yes		No		No Response			
	F	P	F	P	F	P	F	P
Employed	3.6	93.4	21	6.21	1	.30	338	100.0
Retired	290	86.3	45	13.39	1	.30	336	100.0

F = Frequency

P = Percentage

test revealed a significant difference in the responses by the samples. The Chi-Square value of 9.04 was significant at and beyond the .05 level. See Table 8.

TABLE 8

CHI-SQUARE TEST OF SUBJECTS FEELING HEALTHY ENOUGH TO PERFORM NORMAL ACTIVITIES BY EMPLOYMENT STATUS

Employment Status	Categories	Frequency	χ^2
Employed	Yes	316	
	No	21	
Retired	Yes	290	
	No	45	
TOTALS	YES	606	9.04063
	NO	66	

Note: P = .0026 = 9.04063, 1df.

An analysis of the data revealed employees to believe they are healthier than retirees. This is interpreted as evidence to support the idea that as the subjects grow older, mental and physical limitations interfere with their engagement in the normal activities of life.

The question asking the subjects to indicate their relative health status as compared to others the same age provided the information depicted in Table 9. Of the two samples, 42.3 percent of the retirees and 35.2 percent of employees believed their health to be better than others their age. Only 5.0 percent of the employee sample and 6.3 percent of the retiree sample believed their health to be worse than

TABLE 9

RELATIVE HEALTH STATUS OF SUBJECTS
BY EMPLOYMENT STATUS

Employment Status	Health Status as Compared to Others Their Age								Total	
	Better		About the Same		Worse		No Response			
	F	P	F	P	F	P	F	P	F	P
Employed	119	35.2	198	58.5	17	5.03	4	1.18	338	100.0
Retired	142	42.2	166	49.4	21	6.25	7	2.08	336	100.0

F = Frequency

P = Percentage

others their age. The majority of both samples believed their health to be the same as others their age. This was true for 58.6 percent of the employee sample and 49.4 percent of the retiree sample. There was no significant difference in the responses by the two samples.

In order to determine the interests of the subjects in health related matters, an inquiry was made to reveal how much time the subjects spent reading magazine or newspaper articles related to health or medicine. See Table 10. A majority of both samples, 57.7 percent of employees and 61.6 percent of retirees indicated they read only "every now and then." More retirees, 21.4 percent, than employees, 18.3 percent, stated they read "most all of the time." For those who "hardly ever" read about health, 22.8 percent were employees and 15.8 percent retirees. Based on the data, one may assume the subjects were not preoccupied with health concerns and spent an average amount of their time inquiring into health related materials. There was no significant difference in the responses by the two samples.

The subjects' responses to the question investigating how often they listened to radio programs or watched television programs dealing with health and medicine were similar. The majority of both samples stated they watched or listened to health programs only "every now and then." This was true for 52.4 percent of both employees and retirees.

The retired sample with 30.4 percent of its total and 35.2 percent of employees "hardly ever" listened to or watched programs concerning health. This is presented in Table 11. One possible conclusion from the data for the infrequent response is that there

TABLE 10

EMPLOYMENT STATUS OF THE SAMPLE BY INTEREST IN HEALTH
AS MANIFESTED IN READING ABOUT HEALTH AND MEDICINE

Employment Status	Frequency of Reading Magazine or Newspaper Articles about Health										Total	
	Most All the Time		Every Now and Then		Hardly Ever		Not Sure		No Response			
	F	P	F	P	F	P	F	P	F	P	F	P
Employed	62	18.3	195	57.7	77	22.8	2	.59	2	.59	338	100.0
Retired	72	21.4	207	61.1	53	15.7	3	.89	3	.89	336	100.0

F = Frequency

P = Percentage

TABLE 11

EMPLOYMENT STATUS OF THE SAMPLE BY INTEREST IN HEALTH AND MEDICINE AS MANIFESTED BY WATCHING TELEVISION OR LISTENING TO RADIO PROGRAMS

Employment Status	Frequency of Listening to Radio or Watching Television Programs about Health										Total	
	A Whole Lot		Every Now and Then		Hardly Ever		Not Sure		No Response			
	F	P	F	P	F	P	F	P	F	P	F	P
Employed	32	9.5	177	52.4	119	35.2	8	2.4	2	.60	338	100.0
Retired	48	14.3	176	52.4	102	30.4	9	2.7	1	.30	336	100.0

F = Frequency

P = Percentage

is not a large number of health related programs on radio and television, thus limiting the subjects' choices. The Chi-Square test revealed no significant difference in the responses.

With the current emphasis by various community agencies on issues related to senior citizens, an inquiry was made to determine the subjects' interest in health programs as disclosed by their willingness to attend a community program related to health needs and interests of retirees. The results are provided in Table 12.

Employees did show a slightly higher willingness to attend the hypothetical program with 70.4 percent as compared to 67.3 percent of the retired sample. The results of a Chi-Square test did not reveal any significant difference in the responses by the two samples. Those who were undecided as to their willingness to attend the program consisted of 19.8 percent of the employed sample and 17.3 percent of the retired sample. Retirees were, however, more unwilling, 14.9 percent as compared to 9.2 percent for employees, to attend the community program.

III. TVA'S PRESENT PROGRAM OF PREPARATION FOR RETIREMENT

The study instrument contained four questions regarding TVA's Program of Preparation for Retirement. These inquiries into the program were to establish program value to participants and the adequacy of the topics presented.

Information was sought to determine if the subjects had attended or planned to attend TVA's preretirement program. See Table 13. Of

TABLE 12

EMPLOYMENT STATUS OF THE SAMPLE BY WILLINGNESS TO ATTEND A HEALTH NEEDS/PROBLEMS OR INTEREST PROGRAM IN SUBJECT'S COMMUNITY

Employment Status	Willingness to Attend Program on Health Needs and Interests								Total	
	Yes		No		Not Sure		No Response			
	F	P	F	P	F	P	F	P	F	P
Employed	238	70.4	31	9.17	67	19.8	2	.59	338	100.0
Retired	226	67.2	50	14.8	58	17.2	2	.59	336	100.0

F = Frequency

P = Percentage

TABLE 13

EMPLOYMENT STATUS OF THE SAMPLE BY ATTENDANCE OR PLANNED ATTENDANCE OF TVA'S PROGRAM OF PREPARATION FOR RETIREMENT

Employment Status	Attendance of TVA's Program of Preparation for Retirement										Total	
	Yes		No		Not Yet, But Will		Not Yet, But Will Not		No Response			
	F	P	F	P	F	P	F	P	F	P	F	P
Employed	197	58.2	15	4.4	117	34.6	6	1.7	3	.89	338	100.0
Retired	266	79.2	58	17.2	4	1.2	1	.30	7	2.1	226	100.0

F = Frequency

P = Percentage

the employee sample, 58.2 percent had attended the program with 34.6 percent not yet having attended but stating they would when they became eligible. Eligibility for the program is reached at age sixty, five years prior to retirement. If the employee has planned to retire earlier than age sixty-five, he/she may then petition the division in which they are employed for permission to attend the program. Employees who indicated they had not attended the program composed 4.4 percent of the sample while 1.8 percent stated they were not yet eligible and would not attend when they became eligible.

Of the retired sample, 79.2 percent had attended the program while 17.3 percent had not. Those retirees stating they had not as yet attended the program and either would or would not when they became eligible apparently misinterpreted the question and their 1.5 percent of the sample response is invalid.

When the Chi-Square test was applied to the responses by the two samples, it proved significant at and beyond the .05 level. See Table 14. The significant factor in this instance is the popularity of the program as expressed by the 92.9 percent of the employed sample who either have been through the program or will attend when they become eligible. This is compared to the 79.2 percent of the retired sample who had attended the program. The conclusion from the data is that the popularity of the program is increasing significantly as exhibited by those who expressed either a desire to attend or who have already attended.

TABLE 14

CHI-SQUARE TEST OF SUBJECTS' ATTENDANCE OR PLANNED ATTENDANCE OF TVA'S PROGRAM OF PREPARATION FOR RETIREMENT BY EMPLOYMENT STATUS

Employment Status	Categories	Frequency	X^2
Employed	Yes	197	
	No	15	
	Not yet, but will attend	117	
	Not yet, but will not attend	6	
Retired	Yes	266	
	No	58	
	Not yet, but will attend	4	
	Not yet, but will not attend	1	
TOTALS	YES	463	
	NO	73	
	NOT YET, BUT WILL ATTEND	121	144.66962
	NOT YET, BUT WILL NOT ATTEND	7	

Note: $P \leq .001 = 16.27$, 3df

The subjects were asked if they believed that TVA's Program of Preparation for Retirement can help or has helped them enjoy successful retirement. See Table 15.

Of those responding, 64.8 percent of the employee sample and 66.7 percent of the retiree sample indicated that they believed the program can help or has helped them in their retirement. Employees composed 3.8 percent and retirees 12.2 percent of the subjects responding negatively to the question. The employee sample, 24.6 percent, and retiree sample, 17.0 percent, were not sure about the benefits of the program in their retirement.

TABLE 15

EMPLOYMENT STATUS OF THE SAMPLE BY BELIEF THAT TVA'S PROGRAM OF PREPARATION FOR RETIREMENT CAN HELP OR HAS HELPED THEM ENJOY SUCCESSFUL RETIREMENT

Employment Status	Samples Belief TVA's Program Can Help or Has Helped Them Enjoy Successful Retirement								Total	
	Yes		No		Not Sure		No Response			
	F	P	F	P	F	P	F	P	F	P
Employed	219	64.7	13	3.8	83	24.5	23	6.8	338	100.0
Retired	223	66.3	41	12.2	60	17.8	12	3.5	336	100.0

F = Frequency

P = Percentage

Application of the Chi-Square test to the data revealed a significant difference in the responses by the two samples. The Chi-Square value of 18.13 was significant at the .0001 level. See Table 16.

TABLE 16

CHI-SQUARE TEST OF SUBJECTS' BELIEF TVA'S PROGRAM OF PREPARATION FOR RETIREMENT CAN OR HAS HELPED THEM ENJOY SUCCESSFUL RETIREMENT

Employment Status	Categories	Frequency	X^2
Employed	Yes	219	
	No	13	
	Not sure	83	
Retired	Yes	223	
	No	41	
	Not sure	60	
TOTALS	YES	442	
	NO	54	18.13084
	NOT SURE	143	

Note: P = .0001 = 18.13084, 2 df.

The conclusion based upon an analysis of the data is that employees had high expectations for the value of the program in contributing to successful retirement. The majority of retirees believed that the program did help them prepare for retirement. A significant difference appeared between the employees who felt the program would not be beneficial and the retirees who stated that the program did not benefit them. Though this difference was sizable, the conclusion must remain that for the majority of the retirees the program was successful in

meeting its goals. According to the research, it can be expected that the number of employees who feel the program will not help, will increase in the category of did not help after they have completed the program, but again, these subjects will be in the minority when placed in relationship to the entire retiree number.

Question 15 of the instrument attempted to determine whether or not the topics of discussion presently included in TVA's Program of Preparation for Retirement adequately covered topics of concern to employees and retirees who had attended the program. The subjects' responses are shown in Table 17.

TABLE 17

EMPLOYMENT STATUS OF SUBJECTS BY BELIEF THAT TVA'S PROGRAM DISCUSSIONS ADEQUATELY COVERED TOPICS OF CONCERN

Employment Status	Belief topics of discussions in TVA's Program cover topics of concern to sample						Total	
	Yes		No		No Response			
	F	P	F	P	F	P	F	P
Employed	96	28.4	22	6.5	220	65.0	338	100.0
Retired	234	69.6	39	11.6	63	18.7	336	100.0

F = Frequency

P = Percentage

The employed sample, with 28.4 percent, and 69.6 percent of the retired sample reported that the topics in the present program adequately covered areas of concern to them. Those who indicated the program

had not adequately covered topics consisted of 6.5 percent of the employed sample and 11.6 percent of retirees.

A large number, 65.1 percent of the employed sample and 18.7 percent of the retired sample did not respond to the question. The conclusion drawn from this is that these individuals purposefully omitted the question or had not attended the program and therefore were in no position to evaluate the topics.

Application of the Chi-Square test did not reveal any significance of differences in the responses by the two samples.

A second part of question 15 invited the subjects to list topics of concern which are not presently part of TVA's program, or topics which should be covered in more detail. After hand tabulating 21 employee and 54 retiree responses, the following was found:

1. Employees, 71.4 percent, stated that the program should be expanded and all topics covered in more detail. Retirees, 76.0 percent, agreed on the need to cover all topics in more detail.
2. Continuing education and consumer education topics were proposed by 4.8 percent of the employees and 1.9 percent of the retirees.
3. The psychological aspects of retirement should be included in the program as requested by 9.5 percent of employees and 5.6 percent of retirees.
4. Program format should be changed to include spouses' attendance at program, use of retirees to discuss their personal

experiences in retirement, and more qualified discussion leaders. These suggestions accounted for 14.3 percent of employees and 16.7 percent of retiree responses.

If the subjects had not attended the program, the request was made for them to suggest topics that are not now part of TVA's program. Of the number making suggestions, 23 were employees and four were retirees. Hand tabulation and categorization revealed the following:

1. Employees, 60.9 percent, and retirees, 75.0 percent, listed topics that could be included in TVA's present program.
2. Part-time employment after retirement was listed by 17.4 percent of employees but by no retirees.
3. Early retirement and the psychological aspects of retirement were of concern to 13.0 percent of employees.
4. Consumer education and continuing education were listed by 8.7 percent of employees and 25.0 percent of the retired sample responding to the question.

In order to determine the relative importance of health planning as compared to other topics generally included in a comprehensive preretirement program, the subjects were asked to rank seven topics. The most important topic was to be given a rank of "1" and the least important a rank of "7." All other topics were to be ranked accordingly. Table 18 provides the rank of each topic by the employment status of the samples.

Employees and retirees ranked financial planning as the most important topic of preretirement planning. Health planning was the

TABLE 18

EMPLOYMENT STATUS BY SUBJECTS' RANK OF TOPICS IN PRERETIREMENT PROGRAMS

	Rank of Topics in Preretirement Planning Programs by Employment Status	
	Employed	Retired
Topics in Preretirement Planning	1. Financial Planning	1. Financial Planning
	2. Health Planning	2. Health Planning
	3. Leisure-time Activities	3. Legal Services
	4. Legal Services	4. Leisure-time Activities
	5. Community Involvement	5. Community Involvement
	6. Psychological Needs	6. Psychological Needs
	7. Continuing Education	7. Continuing Education

R = .964

second most important topic as determined by the samples. Employees thought leisure-time activities to be the third most important topic. Retirees ranked legal services as the third most important topic and leisure-time activities as their fourth most important area of planning. Employees ranked legal services fourth. The remaining topics, community involvement, psychological needs, and continuing education were ranked accordingly by both samples.

IV. PERCEIVED HEALTH NEEDS/PROBLEMS AND INTERESTS

In order to determine the content of the suggested health education and information component for the preretirement program, it was necessary

to determine the perceived health needs/problems and interests of the subjects. The questionnaire contained a listing of health needs/problems from which the subjects could choose any and all that applied to them.

Of the employee sample, 57.4 percent selected exercise and physical fitness as their most frequent need/problem. Next came knowledge of medical insurance, Medicare and Medicaid, selected by 49.1 percent of the sample. Weight control was the third most frequent need expressed by 43.2 percent of the employee sample.

The retired sample, 47.0 percent, selected chronic disease as their most frequent need/problem. Exercise and physical fitness was the second most frequent need with 45.8 percent selecting it. Knowledge of medical insurance was the third most frequent need/problem selected by 45.2 percent of the retiree sample. All the health needs/problems of employees and retirees are provided in Table 19 by their frequency and percentage.

When the Chi-Square test was applied to each health need/problem, three of the total eighteen proved significant at or beyond the .05 level. These three were: (1) food needs of the older citizen, (2) exercise and physical fitness, and (3) rest and relaxation.

As a health need/problem, food needs of the older citizen was more of a problem to employees than retirees. The Chi-Square value for the difference in responses was 4.57 and significant at the .0326 level as shown in Table 20. Employees responding to this need, 32.6 percent, were greater than retirees having 24.6 percent of their

TABLE 19

HEALTH NEEDS/PROBLEMS OF SUBJECTS BY EMPLOYMENT STATUS

Health Needs/ Problems	Employed		Retired	
	Frequency	Percentage	Frequency	Percentage
Aging and mental health	76	22.5	95	28.3
Acceptance of death and dying	27	8.0	19	5.7
Alcohol, smoking, and drugs	39	11.5	46	13.7
Accidents and the aging citizen	62	18.3	59	17.6
Food needs of the older citizen	105	31.1	76	22.6
Weight control	146	43.2	136	40.5
Exercise and physical fitness	194	57.4	154	45.8
Rest and relaxation	131	38.8	83	24.7
Protection and maintenance of hearing and vision	135	39.9	134	39.9
Dental health	94	27.8	111	33.0
Environmental hazards (air, water, noise pollution, etc.)	49	14.5	48	14.3
Infectious disease (flu, tuberculosis, hepatitis, etc.)	53	15.7	59	17.6
Chronic disease (heart disease, cancer, strokes, arthritis, etc.)	141	41.7	158	47.0
Knowledge of community health programs and services	97	28.7	85	25.3
Access to doctors and medical facilities	128	37.9	112	33.3
Knowledge of medical insurance (Medicare, Medicaid, etc.)	166	49.1	152	45.2
Family living	61	18.0	46	13.7
Sex and the aging man and woman	61	18.0	57	17.0
Other, please specify _____	9	2.7	16	4.8

TABLE 20

CHI-SQUARE TEST BY EMPLOYMENT STATUS OF SUBJECTS' HEALTH NEED/PROBLEM OF FOOD NEEDS OF THE OLDER CITIZEN

Employment Status	Categories	Frequency	X^2
Employed	Yes	105	
	No	217	
Retired	Yes	76	
	No	233	
TOTALS	YES	181	4.56560
	NO	450	

Note: P = .0326 = 4.56560, 1 df.

sample. Based upon the data, employees have a more significant need for food than retirees.

There are two possible conclusions for the significant difference in responses by the samples. The retired subjects, being an older population, have less caloric and metabolic requirements than a younger population (employees). Related to this is the activity level of employees as compared to retirees. The activity level of an employee is greater than for a retired person. Therefore, the retirees appetite and quantity of food necessary to satisfy him/her would not be as great as one who is active throughout the day.

The second significant health need/problem was exercise and physical fitness. The Chi-Square value of 6.49 was significant at the .0108 level. See Table 21.

TABLE 21

CHI-SQUARE TEST BY EMPLOYMENT STATUS OF THE SUBJECTS' HEALTH NEED/PROBLEM OF EXERCISE AND PHYSICAL FITNESS

Employment Status	Categories	Frequency	X^2
Employed	Yes	194	
	No	128	
Retired	Yes	154	
	No	155	
TOTALS	YES	348	6.49431
	NO	283	

Note: P = .0108 = 6.49431, 1 df.

The employed sample, of which 60.2 percent responded to this need while 49.8 percent of the retiree sample believed exercise and fitness to be a need. Therefore, for employees exercise and physical fitness is a significant need/problem.

The difference exhibited by the responses is probably due to availability of time to engage in exercise and fitness activities. More than half, 51.2 percent, of the employee sample were professionals and subprofessionals; therefore, generally confined to a desk or drawing board. As a result, their position does not permit many opportunities for them to be active during their working hours. No doubt many of these individuals take their work home for its completion, thus decreasing the amount of available time to engage in exercise and fitness activities. For retirees, however, they have time available to

do those things they want to spend their leisure time in activities or pursuits which contribute to their fitness.

The third health need/problem that proved significant was rest and relaxation. Table 22 shows the Chi-Square value of 12.83 which is significant at the .0003 level. Of the employed sample, 40.7 percent responded to this need, while 26.9 percent of the retired sample believed rest and relaxation to be a health need/problem.

TABLE 22

CHI-SQUARE TEST BY EMPLOYMENT STATUS OF SUBJECTS' HEALTH NEED/PROBLEM OF REST AND RELAXATION

Employment Status	Categories	Frequency	X^2
Employed	Yes	131	
	No	191	
Retired	Yes	83	
	No	226	
TOTALS	YES	214	12.83221
	NO	417	

Note: P = .0003 = 12.83221, 1 df.

The data bears out the fact that rest and relaxation is more of a need to employees than to retirees. An interpretation of the difference is based upon the belief that employees are more restricted in their potential for rest and relaxation by time and stress as a result of their occupations. Since the employees' time is relatively

consumed by his occupation, the pursuit of that occupation, and the resultant stress of fulfilling his/her obligations to the employer, the employee recognizes the effects of his life style on his health. Therefore, in order to maintain or improve his health status, he feels the need to relieve as much stress as is feasible through engagement in exercise and physical fitness activities and their effects on the body in terms of rest and relaxation, there is no doubt as to the interpretation. Retirees, however, have liberal amounts of time in which to pursue those activities they desire; thus, in their satisfaction of the need for activity, they are able to rest.

In the listing of health needs/problems, the final choice was an "other" category where the subjects could specify any need they believed should be on the list. After hand tabulating and categorizing the responses, all the responses, six for employees and fifteen for retirees, could be combined with the health needs making up the original list. The "other" responses when grouped included: (1) chronic disease, (2) infectious disease, (3) medical insurance, (4) rest and relaxation, (5) mental health, and (6) access to doctors and medical facilities.

After the subjects had selected their health needs/problems, they were asked to rank their five greatest needs from their first greatest through their fifth greatest need. Table 23 presents the three, first greatest health needs/problems of employees as determined by the greatest frequency of response.

TABLE 23

FIRST CHOICE SELECTIONS OF HEALTH NEEDS/PROBLEMS BY EMPLOYEES

Frequency and Percentage	Health Needs/Problems		
	Chronic Disease	Weight Control	Exercise and Physical Fitness
Frequency	54	52	39
Percentage	18.7	18.0	13.5

Number of respondents = 289

Chronic disease was the need/problem of the greatest frequency for the employee sample. There is no doubt that with heart disease, cancer, and apoplexy ranked as the first three greatest causes of death, the concern of employees is justified. Weight control and physical fitness were the next two commonly indicated first greatest health needs.

The choice of the subjects' second greatest health need/problem was exercise and physical fitness. Since exercise and fitness has numerous health benefits, this should be an important topic of preretirement programs. With the shorter work week, leisure-time activities will become an even more important topic in future programs. See Table 24.

Table 25 shows exercise and fitness to be the third greatest health need/problem of employees. Closely ranked with this topic was protection and maintenance of hearing and sight. The employees'

TABLE 24

SECOND CHOICE SELECTION OF HEALTH NEEDS/PROBLEMS BY EMPLOYEES

Frequency and Percentage	Health Needs/Problems		
	Exercise and Physical Fitness	Weight Control	Protection and Maintenance of Hearing and Sight
Frequency	49	35	30
Percentage	17.9	12.8	10.9

Number of respondents = 274

concern for these two senses is due to the importance of vision and hearing in everyday life. Also, as the aging process advances, sight and hearing are somewhat diminished, and the subjects are again expressing their interest in preventing a diminuation of these senses.

Table 26 shows the fourth greatest health need as a tie between access to doctors and medical facilities and knowledge of medical insurance. The employed sample appears to be voicing their concern regarding adequate medical care and the ability to pay for it. Preretirement programs should address themselves to insuring the participants having as thorough an understanding as feasible of the medical care available to them and medical insurance programs such as Medicare and Medicaid. In addition, printed material explaining services and programs should be available to all who desire such materials.

TABLE 25

THIRD CHOICE SELECTIONS OF HEALTH NEEDS/PROBLEMS BY EMPLOYEES

Frequency and Percentage	Health Needs/Problems			
	Exercise and Physical Fitness	Protection and Maintenance of Hearing and Sight	Rest and Relaxation	Knowledge of Medical Insurance
Frequency	30	29	24	24
Percentage	11.6	11.2	9.3	9.3

Number of respondents = 258

TABLE 26

FOURTH CHOICE SELECTIONS OF HEALTH NEEDS/PROBLEMS BY EMPLOYEES

Frequency and Percentage	Health Needs/Problems		
	Access to Doctors and Medical Facilities	Knowledge of Medical Insurance	Exercise and Physical Fitness
Frequency	28	28	20
Percentage	11.6	11.6	8.3

Number of respondents = 241

The fifth greatest health need of employees is the same as the fourth, knowledge of medical insurance. See Table 27.

TABLE 27

FIFTH CHOICE SELECTIONS OF HEALTH NEEDS/PROBLEMS BY EMPLOYEES

Frequency and Percentage	Health Needs/Problems		
	Knowledge of Medical Insurance	Knowledge of Community Health Programs and Services	Sex and the Aging Man and Woman
Frequency	38	18	17
Percentage	16.9	8.0	7.6

Number of respondents = 225

Chronic disease was ranked as the greatest health need/problem of the retired group. See Table 28. Particularly in the age category of most retirees, chronic disease accounts for a large number of deaths each year; therefore, the retired subjects recognize chronic disease as a problem that many will encounter.

TABLE 28

FIRST CHOICE SELECTIONS OF HEALTH NEEDS/PROBLEMS BY RETIREES

Frequency and Percentage	Health Needs/Problems		
	Chronic Disease	Weight Control	Aging and Mental Health
Frequency	53	40	31
Percentage	19.9	15.0	11.7

Number of respondents = 266

Exercise and physical fitness ranked as the second greatest health need of retirees. See Table 29. This health need, in addition to its health benefits can be used to fill, if necessary, the extra time many retirees complain about having.

Chronic disease ranked as the third greatest health need of retirees. See Table 30.

The fourth and fifth greatest health needs of retirees are shown in Tables 31 and 32.

TABLE 29

SECOND CHOICE SELECTIONS OF HEALTH NEEDS/PROBLEMS BY RETIREES

Frequency and Percentage	Health Needs/Problems		
	Exercise and Physical Fitness	Weight Control	Knowledge of Medical Insurance
Frequency	43	30	25
Percentage	16.5	11.5	10.0

Number of respondents = 261

TABLE 30

THIRD CHOICE SELECTIONS OF HEALTH NEEDS/PROBLEMS BY RETIREES

Frequency and Percentage	Health Needs/Problems		
	Chronic Disease	Protection and Maintenance of Hearing and Sight	Knowledge of Medical Insurance
Frequency	29	28	24
Percentage	11.9	11.5	9.9

Number of respondents = 243

TABLE 31

FOURTH CHOICE SELECTIONS OF HEALTH NEEDS/PROBLEMS BY RETIREES

Frequency and Percentage	Health Needs/Problems			
	Exercise and Physical Fitness	Protection and Maintenance of Hearing and Sight	Dental Health	Knowledge of Medical Insurance
Frequency	23	23	21	21
Percentage	10.5	10.5	9.6	9.6

Number of respondents = 219

TABLE 32

FIFTH CHOICE SELECTIONS OF HEALTH NEEDS/PROBLEMS BY RETIREES

Frequency and Percentage	Health Needs/Problems		
	Knowledge of Medical Insurance	Knowledge of Community Health Programs and Services	Chronic Disease
Frequency	28	19	14
Percentage	14.2	9.6	7.1

Number of respondents = 197

The health needs of both employees and retirees reflect their concern for their personal health and the preventative measures they can take to insure a high level of well-being. The subjects' needs also exhibit their concern for receiving adequate medical care and having an understanding and knowledge of medical insurance in order to insure an access to and payment of that medical care.

The questionnaire contained a listing of twenty-seven health interests. The subjects were asked to select those health areas about which they were concerned and they gave special attention. See Table 33 for the frequency and percentage of the health interests of employees and retirees.

The most frequent health interest expressed by employees, 59.2 percent, was exercise and physical fitness. Their second most frequent interest was the ways to prevent poor health, with 56.5 percent of the employee sample choosing it. Access to doctors and medical facilities accounted for 47.6 percent of the employees' samples health interests.

The retirees major health interest was exercise and physical fitness with 52.1 percent of their total sample selecting it. The second most frequent interest, selected by 46.7 percent of the retirees, was the ways to prevent poor health. Retirees, 43.2 percent, selected protection and maintenance of hearing and sight as their third most frequent choice.

The health interests of the two samples is prevention oriented. Exercise and fitness, ways to prevent poor health, and protection and maintaining hearing and vision are disease and injury prevention measures. The subjects recognized the need to prevent disease processes and control injuries in order to have a reasonable measure of good health.

Application of the Chi-Square test for significant differences in the responses proved significant for three health interests. These three were: (1) food needs of the older citizen, (2) effects of the

TABLE 33

HEALTH INTERESTS OF SUBJECTS BY EMPLOYMENT STATUS

Health Interests	Employed		Retired	
	Frequency	Percentage	Frequency	Percentage
Mental illness	42	12.4	25	7.4
Aging and mental health	92	27.2	88	26.2
Alcohol, smoking, and drugs	40	11.8	38	11.3
Accidents and the aging citizen	57	16.9	58	17.3
Food needs of the older citizen	112	33.1	81	24.1
Effects of the aging process on the human body	104	30.8	124	36.9
Theories of the aging process	46	13.6	45	13.4
Health in relation to the aging process	127	37.6	120	35.7
Structure and function of the human body	32	9.5	40	11.9
Protection and maintenance of hearing and vision	151	44.7	145	43.2
Exercise and physical fitness	200	59.2	175	52.1
Rest and relaxation	113	33.4	93	27.7
Posture and body mechanics	45	13.3	40	11.9
Dental health	80	23.7	98	29.2
Weight control	142	42.0	117	34.8
Environmental hazards and your health	43	12.7	45	13.4
Community health programs and services	79	23.4	64	19.0
Infectious disease	63	18.6	52	15.5
Chronic disease	100	29.6	94	28.0
Family living	70	20.7	50	14.9

TABLE 33 (continued)

Health Interests	Employed		Retired	
	Frequency	Percentage	Frequency	Percentage
Sex and the aging man and woman	86	25.4	61	18.2
Health protection, life expectancy, and mortality	67	19.8	68	20.2
The ways a person can prevent poor health	191	56.5	157	46.7
How to choose a doctor	87	25.7	92	27.4
Medical insurance	161	47.6	143	42.6
Access to doctors and medical facilities	137	40.5	118	35.1
Acceptance of death and dying	35	10.4	21	6.3
Other, please specify _____	5	1.5	10	3.0

aging process on the human body, and (3) the ways a person can prevent poor health.

As a health interest, food needs of the older citizen was significant with a Chi-Square value of 4.84 at the .0279 level. See Table 34. Employees, 33.1 percent, and retirees, 24.1 percent responded to food needs of the older citizen as an interest. As was true for health needs, employees regard this topic to be of more interest to them than it is to retirees. The employed sample has been consistent in expressing a need for and interest in information about nutrition and the older citizen.

TABLE 34

CHI-SQUARE TEST BY EMPLOYMENT STATUS OF THE SUBJECTS' HEALTH INTEREST OF FOOD NEEDS OF THE OLDER CITIZEN

Employment Status	Categories	Frequency	X^2
Employed	Yes	112	
	No	201	
Retired	Yes	81	
	No	217	
TOTALS	YES	193	
	NO	418	4.83615

Note: P = .0279 = 4.83615, 1 df.

The second health interest, effects of the aging process on the human body, was significant at the .0396 level and a Chi-Square value of 4.23. See Table 35. Retirees were more interested, 41.6 percent, than employees, 33.2 percent, in the effects of aging on the human

TABLE 35

CHI-SQUARE TEST BY EMPLOYMENT STATUS
OF SUBJECTS' HEALTH INTEREST IN
EFFECTS OF THE AGING PROCESS
ON THE HUMAN BODY

Employment Status	Categories	Frequency	X^2
Employed	Yes	104	
	No	209	
Retired	Yes	124	
	No	174	
TOTALS	YES	228	4.23591
	NO	383	

Note: P = .0396 = 4.23591, 1 df.

body. The retired sample was probably interested in this area due to their being directly affected by the aging process. All people are aging; due to limitations and a reduction in various capacities of the human body as a result of growing older, those who are being immediately affected will naturally be more concerned. As a result of all the information the retiree has, factual or false, he is in the midst of changes occurring to his total being and as a result he is very much aware of these changes.

The third and final significant health interest was the ways a person can prevent poor health. The Chi-Square value of 4.00 was significant at the .0456 level. See Table 36. The interest in this area was higher for employees, 61.0 percent, than retirees, 52.7 percent. Both samples indicated a high level of interest in the topic;

however, the employees' interest was higher than retirees. This is probably due to the desire of employees to prevent illness or disability in later life by initiating prevention-oriented measures at this time. Since the subjects of both samples were concerned about the economic aspects of retirement, perhaps they wanted to improve or at least maintain a reasonable level of good health so as not to become financially burdened by disease or illness in their retirement.

TABLE 36

CHI-SQUARE TEST BY EMPLOYMENT STATUS OF THE SUBJECTS' HEALTH INTEREST OF THE WAYS A PERSON CAN PREVENT POOR HEALTH

Employment Status	Categories	Frequency	X^2
Employed	Yes	191	
	No	122	
Retired	Yes	157	
	No	141	
TOTALS	YES	348	3.99541
	NO	263	

Note: P = .0456 - 3.99541, 1 df.

The "other" selection in the list of health interests provided the opportunity for the subjects to specify any health interest not mentioned in the list. Hand tabulation and categorization revealed two employees and nine retirees to have other health interests. These are categorized as follows: (1) health insurance, (2) mental health, (3) chronic disease, and (4) legislative health programs for older persons.

After the subjects selected their health interests, they were asked to rank the five that were of the most interest to them. Employees, 11.5 percent, selected exercise and physical fitness as their first choice of health interests. See Table 37.

TABLE 37

FIRST CHOICE SELECTIONS OF HEALTH INTERESTS BY EMPLOYEES

Frequency and Percentage	Health Interests		
	Exercise and Physical Fitness	Chronic Disease	Ways to Prevent Poor Health
Frequency	33	32	31
Percentage	11.5	11.2	10.8

Number of respondents = 286

Exercise and physical fitness was also ranked as the second, third, and fourth choice health interests of employees. See Tables 38, 39, and 40. This reinforces the importance of exercise and fitness as a leisure-time activity and for its health-related benefits.

Medical insurance, as an interest, was the fifth choice of employees. See Table 41. A knowledge of medical insurance was the employees' fifth choice as a health need/problem and in this instance the fifth choice as a health interest. The data here provides evidence to support the inclusion of medical insurance information in preretirement programs.

TABLE 38

SECOND CHOICE SELECTIONS OF HEALTH INTERESTS BY EMPLOYEES

Frequency and Percentage	Health Interests		
	Exercise and Physical Fitness	Chronic Disease	Ways to Prevent Poor Health
Frequency	38	28	24
Percentage	13.7	10.1	8.7

Number of respondents = 277

TABLE 39

THIRD CHOICE SELECTIONS OF HEALTH INTERESTS BY EMPLOYEES

Frequency and Percentage	Health Interests		
	Exercise and Physical Fitness	Ways to Prevent Poor Health	Weight Control
Frequency	33	28	21
Percentage	12.1	10.3	7.7

Number of respondents = 273

TABLE 40

FOURTH CHOICE SELECTIONS OF HEALTH INTERESTS BY EMPLOYEES

Frequency and Percentage	Health Interests		
	Exercise and Physical Fitness	Ways to Prevent Poor Health	Medical Insurance
Frequency	24	22	22
Percentage	9.0	8.3	8.3

Number of respondents = 266

TABLE 41

FIFTH CHOICE SELECTIONS OF HEALTH INTERESTS BY EMPLOYEES

Frequency and Percentage	Health Interests		
	Medical Insurance	Ways to Prevent Poor Health	Access to Doctors and Medical Facilities
Frequency	23	21	19
Percentage	9.1	8.3	7.5

Number of respondents = 253

The retirees' ranking of health interests revealed weight control to be their greatest interest. See Table 42. The relationship between being overweight and chronic disease is great enough to suggest the need for weight control.

TABLE 42

FIRST CHOICE SELECTIONS OF HEALTH INTERESTS BY RETIREES

Frequency and Percentage	Health Interests		
	Weight Control	Aging and Mental Health	Ways to Prevent Poor Health
Frequency	26	25	25
Percentage	10	9.6	9.6

Number of respondents = 261

Their second and third choices of health interests were exercise and physical fitness. See Tables 43 and 44. The retired groups' health interests correspond to the employed group in that exercise and physical fitness was the more predominant due to its health related benefits and use as a leisure time activity.

TABLE 43

SECOND CHOICE SELECTIONS OF HEALTH INTERESTS BY RETIREES

Frequency and Percentage	Health Interests		
	Exercise and Physical Fitness	Health in Relation to Aging Process	Knowledge of Medical Insurance
Frequency	28	21	19
Percentage	10.9	8.2	7.4

Number of respondents = 256

TABLE 44

THIRD CHOICE SELECTIONS OF HEALTH INTERESTS BY RETIREES

Frequency and Percentage	Health Interests			
	Exercise and Physical Fitness	Protection and Maintenance of Hearing and Sight	Ways to Prevent Poor Health	Knowledge of Medical Insurance
Frequency	31	19	18	18
Percentage	12.5	7.7	7.3	7.3

Number of respondents = 248

Retirees selected as their fourth and fifth choices the ways to prevent poor health. The health interests of retirees did not appear to vary much from their health needs/problems. See Tables 45 and 46.

TABLE 45

FOURTH CHOICE SELECTIONS OF HEALTH INTERESTS BY RETIREES

Frequency and Percentage	Health Interests		
	Ways to Prevent Poor Health	Exercise and Physical Fitness	Knowledge of Medical Insurance
Frequency	23	20	20
Percentage	9.6	8.4	8.4

Number of respondents = 239

TABLE 46

FIFTH CHOICE SELECTIONS OF HEALTH INTERESTS BY RETIREES

Frequency and Percentage	Health Interests		
	Ways to Prevent Poor Health	Knowledge of Medical Insurance	Access to Doctors and Medical Facilities
Frequency	23	21	20
Percentage	10.1	9.2	8.8

Number of respondents = 228

V. CONSIDERATIONS FOR PROGRAM DEVELOPMENT

This section of the questionnaire served to identify various aspects of program format to be incorporated, where feasible, in the

health education and information component of the total program. Question 21 of the instrument asked the subjects to indicate whether or not TVA should use health-related organizations to provide information related to helping the program participants understand their health needs/problems and interests. The intent of the inquiry was to determine if organizations such as American Heart Association, American Cancer Society and National Dairy Council, etc., should provide their expertise and information in helping the program participants with their health needs/problems and interests. See Table 47.

Of the employed sample, 41.1 percent believed TVA should use health-related organizations in helping the program participant understand his health needs/problems and interests, while 22.5 percent did not agree. Retirees, 37.5 percent agreed that health organizations should be used, with 22.6 percent stating they should not. Those who were not sure whether or not to utilize health organizations consisted of 33.0 percent employed and 32.4 percent retired. A Chi-Square test did not reveal any significant differences in responses.

Since only 22.4 percent of the total sample rejected the use of health organizations in assisting participants, the belief is that these groups should be contacted to provide films for group viewing and written materials for inclusion in packets for distribution to all preretirement program participants.

The subjects were asked to respond to the question of how long prior to retirement should preretirement programs be offered. See

TABLE 47

EMPLOYMENT STATUS OF SUBJECTS' BELIEF THAT TVA SHOULD USE HEALTH-RELATED ORGANIZATIONS IN PRERETIREMENT PROGRAM PRESENTATION

Employment Status	Samples' Belief that TVA Should Use Health-Related Organizations in Presenting Preretirement Program								Total	
	Yes		No		Not Sure		No Response			
	F	P	F	P	F	P	F	P	F	P
Employed	139	41.1	76	22.5	114	33.7	9	2.7	338	100.0
Retired	126	37.5	76	22.6	109	32.4	25	7.4	336	100.0

F = Frequency

P = Percentage

Table 48. Retirees more so than employees, 36.3 and 34.6 percent respectively, believed preretirement programs should be presented one year prior to retirement. Those retirees believing five years prior to retirement to be best accounted for 40.5 percent, while 40.2 percent of employees thought so. Ten years prior to retirement was suggested by 8.9 percent of the employee group and 1.8 percent of the retiree sample.

The Chi-Square test was applied to determine a significant difference between the responses by the samples. The Chi-Square value of 15.51 was significant at the .0014 level. See Table 49. The reason for the significant difference in response appears to be that employees want preretirement programs to be presented a long time prior to retirement. However, retirees seem to indicate the programs should be given closer to the time of actual retirement.

Question 22 permitted the subjects to offer their opinions as to when the program should be offered other than the time periods specified. Of these responses, 41.2 percent of the employee sample suggested a single time which implied a single presentation of the program as compared to 32.0 percent of the retiree group. The time suggestions for a combination of presentations accounted for 58.8 percent of employee suggestions and 48.0 percent for retirees.

Hand tabulation and categorization of fifty-one employee and fifty retiree suggestions revealed the following time periods:

TABLE 48

SUBJECTS' OPINION OF TIME PRIOR TO RETIREMENT FOR PRERETIREMENT PROGRAMS BY EMPLOYMENT STATUS

Employment Status	Time Prior to Retirement when Preretirement Program Should be Offered										Total	
	1 year		5 years		10 years		Other		No Response			
	F	P	F	P	F	P	F	P	F	P	F	P
Employed	117	34.6	136	40.2	30	8.9	51	15.1	4	1.2	338	100.0
Retired	122	36.3	136	40.5	6	1.8	50	14.9	22	6.5	336	100.0

F = Frequency

P = Percentage

TABLE 49

CHI-SQUARE TEST OF SUBJECTS' OPINION OF TIME PRIOR TO RETIREMENT FOR PRERETIREMENT PROGRAMS BY EMPLOYMENT STATUS

Employment Status	Categories	Frequency	X^2
Employed	1 year	117	
	5 years	136	
	10 years	30	
	Other	51	
Retired	1 year	122	
	5 years	136	
	10 years	6	
	Other	50	
TOTALS	1 YEAR	239	15.51201
	5 YEARS	272	
	10 YEARS	36	
	OTHER	101	

Note: P = .0014 = 15.51201, 3 df.

Single-time Period

1. One year or less was suggested by 3.9 percent of the employee sample and 12.0 percent of retired group.

2. Two-to-three years prior to retirement was recommended by 27.5 percent of the employed group and 20.0 percent of the retired sample.

3. Four-to-five years in advance of retirement age was suggested by 3.9 percent of the employed sample.

4. Ten years or more prior to retirement was the comment of 5.9 percent of employees and 4.0 percent of retirees.

Time-combination Program

1. A program two years in advance of retirement then a refresher program the year in which one retires was suggested by 2.0 percent of the employee sample and 4.0 percent of retired group.

2. A comprehensive program five years prior to retirement then a comprehensive program the year of retirement was recommended by 33.3 percent of employees and 28.0 percent of retired sample.

3. Ten years prior to retirement age, then a refresher course either five years later or the year in which one will retire was suggested by 7.8 percent of employed sample and 8.0 percent of retired group.

4. The remaining comments included having a continuous program throughout the employment period or the program offered at the employee's request.

TVA's program presently includes approximately two hours for a session devoted to the topic of health. The subjects were asked if this time should be increased, decreased, or remain the same. See Table 50. A majority of both samples, 54.1 percent of the employed sample and 56.0 percent of the retired group, believed the program time to be adequate. The retired sample, 28.6 percent, felt an increase in the time devoted to health should occur, while 2.7 percent believed the time should be decreased. Employees, 24.3 percent believed an increase in time was necessary, but 1.5 percent recommended that it be decreased. Of the two samples, more employees, 18.3 percent, than

TABLE 50

EMPLOYMENT STATUS OF SUBJECTS BY TIME DEVOTED TO HEALTH COMPONENT OF PRERETIREMENT PROGRAM

Employment Status	Time Devoted to Program										Total	
	Increase		Decrease		Same		Not Sure		No Response			
	F	P	F	P	F	P	F	P	F	P	F	P
Employed	82	24.3	5	1.5	183	54.1	62	18.3	6	1.8	338	100.0
Retired	96	28.6	9	2.7	188	56.0	20	6.0	23	6.8	336	100.0

F = Frequency

P = Percentage

retirees, 6.0 percent, were not sure whether the time should increase, decrease, or remain the same.

When the Chi-Square test to determine if there was a significant difference in the responses, the Chi-Square value of 23.28 was achieved and significant at and beyond the .0001 level. See Table 51. Based upon an analysis of the data, the significant level was reached due to those respondents who were not sure whether the time devoted to program should be increased, decreased, or remain the same. There was a significant difference in the "not sure" responses. More employees, 18.3 percent, were not sure about their wanting to change the time devoted to the program or for it to remain the same. This may be compared to 6.0 percent of the retired sample.

TABLE 51

CHI-SQUARE TEST BY EMPLOYMENT STATUS OF SUBJECTS' OPINION IF THERE SHOULD BE A CHANGE IN THE TIME DEVOTED TO HEALTH IN PRERETIREMENT PROGRAM

Employment Status	Categories	Frequency	X^2
Employed	Increase	82	
	Decrease	5	
	Remain the same	183	
	Not sure	62	
Retired	Increase	96	
	Decrease	9	
	Remain the same	188	
	Not sure	20	
TOTALS	INCREASE	178	23.28406
	DECREASE	14	
	REMAIN THE SAME	371	
	NOT SURE	82	

Note: $P \leq .0001 = 16.27$, 3 df.

With the present structure of the preretirement program and specifically the health component, the logical conclusion is that a two-hour period of time is adequate. However, with proposed changes in the program's format and content, the subjects could have been unsure about their response. In addition, the fact is clear that the time devoted to health should not be decreased; this was quite apparent based upon the data.

In order to determine the preferred instructional techniques of the subjects, they were asked to indicate the teaching techniques they believed would be beneficial to them. Table 52 provided the frequency and percentage of the responses by employment status. There was no significant difference found between the two samples in their responses as determined by the Chi-Square test.

The most frequent choice by both samples was that of a small group of 10 to 15 people with a discussion leader. The small group session appealed to 71.6 percent of the employee group and 72.6 percent of retirees. Audiovisual aids such as television, films, and filmstrips were selected by 60.0 percent and 51.5 percent of the employed and retired samples, respectively. Individualized counseling proved to be the third most frequent choice for 44.1 percent of employees and 34.8 percent of the retired group. Group counseling tied as the third most frequent choice of retirees' preference as an instructional technique with 34.8 percent of their sample.

The subjects clearly rejected any technique which did not involve a discussion leader. Small groups and individualized counseling were

TABLE 52

EMPLOYMENT STATUS OF SUBJECTS BY FREQUENCY AND PERCENTAGE OF TECHNIQUES TO UTILIZE IN PRESENTING PRERETIREMENT PROGRAMS

Techniques	Employment Status			
	Employed		Retired	
	F	P	F	P
Audiovisual Aids	203	60.0	174	51.8
Large Group with Discussion Leader	54	16.0	53	15.8
Large Group without discussion leader	7	2.1	7	2.1
Small Group with discussion leader	242	71.6	244	72.6
Small Group without discussion leader	27	8.0	13	3.9
Individual Counseling	149	44.1	117	34.8
Group Counseling	110	32.5	117	34.8
Problem Solving Activities	125	37.0	111	33.0
Other	9	2.7	13	3.9

the more preferred techniques due to their intimate nature and the opportunity for individual attention. Audiovisual aids, apparently, are a necessity in the presentation of preretirement programs.

The question provided an opportunity for the subjects to specify any instructional technique they believed should be utilized in presenting the program. Hand tabulation and categorization of nine employee suggestions and eleven retiree preferences revealed:

Retirees wanted:

1. A combination of techniques such as small group and problem-solving activities and small group and individualized counseling

2. A series of booklets guiding them through areas of concerns in retirement

3. Experts to discuss various topics related to retirement

4. Retirement programs for retired personnel

5. Time for special interest groups such as hobbyists to get together to discuss their interests

Employees wanted:

1. A combination of techniques such as audiovisual aids and small group or small groups and individualized counseling

2. Use of retirees to tell about all phases of their retirement

3. Specialists in various areas to discuss and answer questions

4. Liberal amounts of written material for reference when needed

5. Special interest counseling such as sports and recreation

There is a similarity of thought in these responses as shown by the desire of both samples to want a variety of techniques, experts to discuss and answer questions, and written materials for future reference. Special efforts should be made to insure the incorporation of these requests into the program format.

Following the selection of their preferred instructional techniques, the subjects were asked to rank the first three which would benefit them the most. The primary choice of employees with 39.6 percent of their sample selections was small groups with a discussion leader. See Table 53.

TABLE 53

FIRST CHOICE SELECTIONS OF TECHNIQUES FOR TVA RETIREMENT PREPARATION PROGRAM BY EMPLOYEES

Frequency and Percentage	Teaching Techniques		
	Small Group with Discussion Leader	Audiovisual Aids	Individual Counseling
Frequency	126	70	61
Percentage	39.6	22.0	19.2

Number of respondents = 318

The second choice of employees was also small groups with a discussion leader. See Table 54.

TABLE 54

SECOND CHOICE SELECTIONS OF TECHNIQUES FOR TVA RETIREMENT PREPARATION PROGRAM BY EMPLOYEES

Frequency and Percentage	Teaching Techniques		
	Small Group with Discussion Leader	Audiovisual Aids	Group Counseling
Frequency	88	63	41
Percentage	30.7	22.0	14.3

Number of respondents = 287

Problem-solving activities was the third choice of the employed sample. See Table 55. The intent of problem-solving is to seek realistic answers to real-life problems faced by those preparing to

TABLE 55

THIRD CHOICE SELECTIONS OF TECHNIQUES FOR TVA RETIREMENT PREPARATION PROGRAM BY EMPLOYEES

Frequency and Percentage	Teaching Techniques		
	Problem-Solving Activities	Audiovisual Aids	Individual Counseling
Frequency	78	62	42
Percentage	30.8	24.5	16.6

Number of respondents = 253

retire and retirees. Small groups and problem-solving activities are techniques which can be used in combination with each other to provide the most conducive atmosphere in which to explore the retirement phenomenon.

Retirees selected as their most preferred choice, small group with a discussion leader. A majority, 54.1 percent ranked this technique as their most preferred. See Table 56.

Audiovisual aids was ranked as the second choice of 26.6 percent of the retired group. Their preference to utilize films and television to help them learn about retirement is their recognition of the value of these techniques. The retirees' familiarity with audiovisual aids no doubt contributed to its high rank. See Table 57.

Problem solving was the retirees' third preference with 25.7 percent of their sample selecting it. See Table 58.

TABLE 56

FIRST CHOICE SELECTIONS OF TECHNIQUES FOR TVA RETIREMENT PREPARATION PROGRAM BY RETIREES

Frequency and Percentage	Teaching Techniques		
	Small Groups with Discussion Leader	Audiovisual Aids	Individual Counseling
Frequency	159	56	31
Percentage	54.1	19.0	10.5

Number of respondents = 294

TABLE 57

SECOND CHOICE SELECTIONS OF TECHNIQUES FOR TVA RETIREMENT PREPARATION PROGRAM BY RETIREES

Frequency and Percentage	Teaching Techniques		
	Audiovisual Aids	Small Group with Discussion Leader	Group Counseling
Frequency	69	52	44
Percentage	26.6	20.1	17.0

Number of respondents = 259

TABLE 58

THIRD CHOICE SELECTIONS OF TECHNIQUES FOR TVA RETIREMENT PREPARATION PROGRAM BY RETIREES

Frequency and Percentage	Teaching Techniques		
	Problem Solving	Group Counseling	Individual Counseling
Frequency	58	53	46
Percentage	25.7	23.5	20.4

Number of respondents = 226

Both samples, therefore, selected small group discussions with a leader, audiovisual aids and problem-solving activities as their preference in instructional techniques. These used in combination can provide the best opportunity for the subjects to explore the transition into and adjustment that retirement requires.

In order to determine the subjects' belief that TVA's Program of Preparation for Retirement can help or has helped them identify and meet their health needs/problems and interests, they were asked to respond to the question. See Table 59. A majority of both samples, 62.7 percent and 64.6 percent of employees and retirees respectively, indicated that the program could or has helped them. Employees who responded negatively to the question made up only 3.3 percent of the sample, while retirees, 12.2 percent, responded negatively.

Those who were not sure as to whether the program could or has helped them composed 23.4 percent of the employed sample and 13.4

TABLE 59

EMPLOYMENT STATUS OF SUBJECTS BY BELIEF THE PROGRAM CAN HELP OR HAS HELPED MEET HEALTH NEEDS/PROBLEMS AND INTERESTS

Employment Status	Samples' Belief Program Can Help Meet Health Needs/Problems and Interests								Total	
	Yes		No		Not Sure		No Response			
	F	P	F	P	F	P	F	P	F	P
Employed	212	62.7	11	3.3	79	23.4	36	10.7	338	100.0
Retired	217	64.6	41	12.2	45	13.4	33	9.8	336	100.0

F = Frequency

P = Percentage

percent of the retired group. Application of the Chi-Square test for significance revealed responses to differ significantly beyond the .0001 level. See Table 60. A significant difference appeared between the employees who felt the program would not be beneficial in meeting health needs/problems and interests and retirees who stated the program did not benefit them. Though the difference was significant, the conclusion must remain that for a majority of retirees the program was beneficial in identifying and meeting their health needs/problems and interests. Based on the data, the number of employees believing the program will not help, will increase in the category of did not help after retirement. However, these subjects will remain in the minority when compared to the entire retired population.

The personnel who have responsibilities for administering and presenting the preretirement program should make continued efforts to improve the program to maintain its effectiveness in meeting the needs/problems and interests of the majority of its participants. In addition efforts should be made to reduce the number who felt the program was not or could not be of value to them.

VI. SUMMARY

This chapter was concerned with reporting and interpreting the research data produced from 674 respondents comprising the study sample. The chapter was divided into six parts. Section I described the demographic and socioeconomic characteristics of the employed and

TABLE 60

CHI-SQUARE TEST BY EMPLOYMENT STATUS OF THE SUBJECTS' BELIEF TVA'S PROGRAM OF PREPARATION FOR RETIREMENT CAN OR HAS HELPED THEM WITH THEIR HEALTH NEEDS/PROBLEMS AND INTERESTS

Employment Status	Categories	Frequency	X^2
Employed	Yes	212	
	No	11	
	Not Sure	79	
Retired	Yes	217	
	No	41	
	Not Sure	45	
TOTALS	YES	429	26.68697
	NO	52	
	NOT SURE	124	

Note: $P \leq .001 = 13.82$, 2 df.

retired subjects. An analysis of their sex, marital status, age, family income, educational level, and occupation was made and reported according to their employment status.

Section II was a reporting and analysis of the subjects' perceptions of their health status and interest in health. Both employees and retirees exhibited an average amount of interest in health and believed themselves to be relatively healthy. Section III investigated TVA's Program of Preparation for Retirement. The subjects' attendance or planned attendance, belief the program could or has helped them in retirement, opinion of adequacy of present program, and ranking of preretirement program topics was reported and analyzed by employment status.

Section IV reported and discussed the perceived health needs/problems and interests of the subjects, plus their ranking their five greatest health needs/problems and interests. Needs/problems and interests of exercise and fitness, weight control, nutrition, rest and relaxation, medical insurance, chronic disease were the more predominant. These needs/problems and interests, plus other predominant ones, are to provide the content of the suggested health education and information component.

Section V was designed to provide information related to program development. The subjects' opinion on the use of health-related groups to help present programs, time prior to retirement when programs should be offered, time devoted to the topic of health, and instructional techniques to be used in presenting the program were sought for inclusion where feasible in developing the suggested health education and information component. The subjects' opinion as to their belief the program could help or has helped with their health needs/problems and interests was sought and the majority response was favorable.

CHAPTER V

SUMMARY, FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

I. SUMMARY

The purpose of this study was the development of a health education and information component for TVA's Program of Preparation for Retirement based primarily on the perceived health needs/problems and interests of employees approaching retirement and retirees. A total of 674 subjects, 338 employees and 336 retirees completed and returned the Health Needs and Interest Questionnaire developed by the investigator for this study.

The data obtained from the questionnaire were compiled and analyzed using frequencies, percentages, and the Chi-Square statistic for two independent samples. The significance level of .05 was used for determining the significance of differences between variables.

II. FINDINGS

The findings of this study are summarized as follows:

1. The proportion of men to women in the original population was equaled by retirees returning completed questionnaires but not reached by the employed sample.

2. Males comprised 88.5 percent of employees and 90.5 percent of retirees, while women composed 11.5 percent of the employee group and 9.5 percent of the retiree sample.

3. The majority of both samples were married.

4. The age distribution of the samples found a majority of employees in the age range of 55-59. Retirees in the age group 65-69 composed a majority of their sample.

5. The total yearly income was highest for employees.

6. The educational levels of the two samples did not significantly differ.

7. A majority of both samples were in the occupational categories of trades and labor and subprofessionals.

8. The majority of both samples, 86.3 percent of retirees and 93.4 percent of employees believed their health status did not interfere with their normal activities.

9. Retirees believed their health to be about the same as other people their age with 49.4 percent of their sample as compared to 58.5 percent of employees health being the same as others their age.

10. The subjects indicated they read about health or medicine only every now and then.

11. Most of both samples watch or listen to health or medical programs every now and then.

12. The majority of both samples, 70.4 percent of employees and 67.2 percent of retirees are willing to attend a community program related to their health needs/problems and interests.

13. A majority of employees, 58.2 percent and retirees, 79.2 percent had attended TVA's Program of Preparation for Retirement.

Employees not yet eligible to attend TVA's program but would attend when eligible consisted of 34.6 percent.

14. Both samples mostly agreed that TVA's Program of Preparation for Retirement could help or has helped them enjoy successful retirement.

15. More retirees, 69.6 percent, than employees, 28.4 percent, believe the topics in TVA's present program adequately cover topics of concern to the subjects.

16. Employees and retirees both ranked health planning as the second most important preretirement program topic; financial planning ranked first.

17. Three health needs/problems proved significant for employees: food needs of the older citizen, exercise and physical fitness, and rest and relaxation.

18. Employees ranked as their greatest health needs: chronic disease, exercise and physical fitness, access to doctors and medical facilities, and knowledge of medical insurance.

19. Retirees ranked as their greatest health needs/problems: chronic disease, exercise and physical fitness, and knowledge of medical insurance.

20. Two health interests proved significant for employees: food needs of the older citizen and the ways a person can prevent poor health.

21. One health interest proved significant for retirees, the effects of the aging process on the human body.

22. The employees' greatest health interests are in the areas of exercise and physical fitness and knowledge of medical insurance.

23. Retirees' greatest health interests are in the areas of weight control, exercise and physical fitness, and the ways to prevent poor health.

24. Health-related organizations should be used in presenting TVA's Program of Preparation for Retirement was suggested by 41.1 percent of the employed group and 37.5 percent of the retired sample.

25. The preferred time of presenting a preretirement program is five years prior to retirement suggested 40.2 percent of employees and 40.5 percent of the retired group.

26. The two samples recommended that the time devoted to the health session in the preretirement program should remain the same as it is now—two hours.

27. The employed sample chose as their most preferred instructional techniques: small groups with a discussion leader and problem-solving activities.

28. Retirees favored small groups with a discussion leader, audiovisual aids, and problem-solving activities.

29. The majority of both samples, 62.7 percent of the employed sample and 64.6 percent of the retired group believed TVA's Program of Preparation for Retirement could help or has helped them in meeting their health needs/problems and interests.

III. CONCLUSIONS

The following conclusions are based on an analysis of the data presented:

1. The health status of the subjects in the sample does not limit their engagement in normal activities.

2. Both retirees and employees do not seem to be preoccupied with their health. They exhibit normal concern for their health.

3. The interest in TVA's Program of Preparation for Retirement is very high.

4. The expectation level of employees and the experience of retirees is that TVA's Program of Preparation for Retirement is beneficial to the participants.

5. Health planning is one of the most important topics to be included in a preretirement program.

6. Since both employees and retirees expressed concern about a variety of retirement problems, preretirement programs should be comprehensive in nature and not limited to one or two areas of concern.

7. Topics of great concern and need to both retirees and employees include: chronic disease, exercise and physical fitness, weight control, knowledge of medical insurance, access to doctors and medical facilities, and the ways to prevent poor health.

8. Employees needs/problems and interests vary significantly from retirees in the areas of nutrition, exercise and physical fitness, rest and relaxation, and the ways to prevent poor health.

9. Retirees had one health interest to vary significantly from employees, the effects of the aging process on the human.

10. Preretirement programs are best offered at a time relatively close to retirement age. The study showed five years prior to retirement age to be best.

11. The instructional techniques to be used in presenting preretirement programs should include: small groups with a discussion leader, audiovisual aids, and individualized counseling.

12. TVA's Program of Preparation for Retirement can be of benefit in helping employees and retirees identify and meet their health needs/problems and interests.

IV. RECOMMENDATIONS

The following recommendations are based on the data produced by the study, the literature review, and the investigator's knowledge of the subject:

1. In addition to the health needs/problems and interests of the older citizen, increased efforts should be made to determine all needs/problems and interests of the aged population. The totality of the human organism cannot be undermined by piecemeal attempts to deal with one small aspect. The interaction and compounding effect of all the aged citizens' needs/problems and interests produces the plight our older Americans find themselves in. Therefore, programs which are comprehensive in nature must confront the needs/problems

and interests of the aging population and assist them in eliminating these areas of concern.

2. Programs to assist the aging population in their transition into retirement must be available to all and not just confined to an industrial setting. The public school system as well as community agencies must share the responsibility of providing preretirement programs to all who are interested.

3. Additional research should be done in the area of preretirement programs. At this time, this is a relatively new area of concern and thus, those who are interested in this topic are on the threshold of a rapidly expanding field.

4. Programmed learning materials incorporating audiovisual aids should be developed for use as a technique for providing information on retirement problems.

5. One of the problems encountered by those working in the discipline of gerontology is the absence of preretirement programs which have been evaluated. There are many new programs being initiated in all aspects of society, but finding one that has been evaluated and revisions made based on those evaluations is difficult. Therefore, more emphasis must be placed upon evaluation procedures of all preretirement programs in order to insure the programs are meeting the needs/problems and interests of the participants.

6. The training of gerontological workers using an interdisciplinary approach must be expanded in order to meet the needs of industry and

various other organizations. As a result of lowered birth rates, the population will shift from being young to an older one. Thus, in order to identify and meet the needs/problems and interests of an ever-increasing population, qualified people must be available.

7. Since TVA has had a preretirement program for several years, other organizations and industrial groups look to them as a model program. Therefore, TVA should make an in-depth study of their preretirement program and make whatever changes are necessary to insure its being an exemplary model.

8. TVA's preretirement program should be given a more permanent position in the organization. In the past few years, the program has been housed in two different branches. To insure continuity and stability, an in-depth study by the personnel of TVA should determine the most desirable division or branch to take full responsibility for administering the program.

9. In addition to TVA's personnel being used to present the preretirement program, resource persons with expertise in the different areas of the program should be used.

10. The availability and distribution of written materials related to all aspects of the program including the health needs/problems and interests must be increased. A search should be initiated to locate information related to all topics now included in the program. Following the materials' location, the feasibility of acquiring and distribution should be determined.

11. The employee's spouse should be invited to attend all sessions of the program.

12. A more detailed investigation should be made to determine the most opportune time prior to retirement when preretirement programs should be offered. The literature is not clear on this issue.

13. The relationship of demographic and socioeconomic characteristics on the health needs/problems and interests of employed and retired personnel should be examined for significant differences. This information could be used to improve the effectiveness of the program in meeting the needs/problems and interests of participants with diverse backgrounds.

14. Health needs/problems such as weight control, exercise and physical fitness, knowledge of medical insurance, chronic disease, nutrition, rest and relaxation, and nutrition should receive special attention in the health component of the preretirement program.

15. Health interests to include: the effects of the aging process on the human body, the ways to prevent poor health, exercise and fitness, medical insurance and weight control should be an integral part of the health component.

16. The prevention aspects of disease and injury should be an important ingredient in the health education and information component.

17. An investigation should be made into expanding the time devoted to each topic composing the preretirement program.

18. An investigation should be made of retirees who have been retired for more than five years in order to determine differences in their health needs/problems and interests.

19. As more women retire from TVA, an investigation should be made to determine differences in the health needs/problems and interests of men and women in order to insure the program is meeting the needs and interests of both.

CHAPTER VI

THE SUGGESTED HEALTH EDUCATION AND INFORMATION COMPONENT FOR PRERETIREMENT PROGRAMS

The purpose of this chapter is to present the suggested health education and information component of a comprehensive preretirement program. Therefore, the health component is one of a series of sessions designed to provide information and help the participant plan for his/her retirement. Each topic or area of discussion should relate to meeting the needs/problems and interests of the individual. Topics generally included in comprehensive preretirement programs are: (1) financial planning, (2) retirement benefits (organization's or company's pension plan, social security, medical insurance, etc.), (3) health, (4) leisure-time activities, (5) legal services (wills and estate planning, etc.), (6) additional topics such as family relationships.

The health component here offered is but one aspect of an overall program; thus, it must operate within the confines of the total program such as time presented prior to retirement age, time devoted to each topic of concern, facilities, personnel, budget, etc. This chapter provides the suggested health education and information component in discussion form as organized in the following outline.

I. OUTLINE

I. Personnel Involved in Program

- A. Health Educator
- B. Physician
- C. Resource Persons

II. Behavioral Objective of Program

III. Determining Health Needs/Problems and Interests

- A. Health Inventory
- B. Research

IV. The Program

- A. Time Devoted to Health Concerns
- B. Topics
- C. Instructional Techniques
- D. Evaluation

II. PERSONNEL USED IN PROGRAM PRESENTATION

The individual(s) used in planning and presenting the health component must be knowledgeable of the health needs/problems and interests of the program's participants, be familiar with a variety of instructional techniques, and possess the ability to communicate effectively. Physicians generally are used to plan and present this session; however, the session is one of providing health education

and information and not a medical program. Therefore, the recommendation is that a qualified health educator be used to plan and provide health instruction. A physician should be available to answer medical oriented questions but not take responsibility for the program's presentation.

Resource personnel from community health related agencies such as the American Heart Association, American Cancer Society, etc., should be available to provide information related to their special interest group. If possible, retirees from the particular group or organization should be invited to discuss and answer questions regarding their health needs/problems and interests. The program participants may desire to ask the retiree questions thought to be too trivial for the physician or health educator.

III. BEHAVIORAL OBJECTIVES

The following behavioral objectives are set forth to establish desirable participant outcomes as a result of their attendance of the health education and information program.

At the completion of the health education and information session the participant will be able to:

1. identify his/her health needs/problems and interests
2. identify the effects of the aging process on the human body
3. identify the health needs/problems and interests that may arise in the future as a result of aging

4. identify the need to take personal responsibility for meeting his/her health needs/problems and interests utilizing prevention oriented health attitudes and behaviors

5. identify alternative solutions to his/her health needs/problems and interests and choose the most appropriate solution(s) based upon his/her particular needs and interests

6. identify a variety of sources to which he/she can go for health information or services

7. discuss the concept of successful aging as related to his/her health needs/problems and interests

8. select or develop the attitudes, knowledge, and behaviors which will positively improve the quality of his/her life and integrate these into his/her personal life styles

IV. DETERMINING HEALTH NEEDS/PROBLEMS AND INTERESTS

Determining the health needs/problems and interests of the programs participants can be accomplished in several ways. First, an inventory or questionnaire can be administered sometime prior to the participants' attendance of the health session. One suggestion is that the inventory be mailed to those who are eligible to attend the program. After their completion, the questionnaires could be returned and an analysis made to determine the greatest health needs/problems and interests of those who well attend. If this is not feasible, sometime during the first introductory session, the inventory could be completed and submitted to the health educator for his analysis.

An alternative to the above is for research into the health needs/problems and interests to be carried out on the population from which the program will draw its participants. The data should provide demographic and socioeconomic characteristics of the population in order to determine significant differences in their health needs/problems and interests.

Any or all of these techniques would permit the program planners to specifically design the health program to meet the needs/problems and interests of the participants. The result should be a relevant, interesting, and beneficial program.

V. THE PROGRAM

The health education and information component of the overall program must provide for maximum utilization of time since it is only one of a series of topics. Therefore, the amount of time devoted to the health session will be approximately two hours. The literature review and research carried out by the investigator found two hours to be the usual amount of time devoted to the topic of health.

The content of the program should be based upon the greater needs/problems and interests of the participants. The investigator found the following health needs/problems and interests to be of most concern in his study of employed persons approaching retirement and retirees:

1. Exercise and physical fitness
2. Rest and relaxation
3. Weight control

4. Nutrition
5. Chronic disease
6. Effects of the aging process on the human body
7. Access to doctors and medical facilities
8. Medical insurance

These needs/problems and interests are similar to those found in other research as shown in the investigator's review of literature on preretirement programs.

Every attempt should be made to identify the needs/problems and interests of the group which will participate in the preretirement program; however, those mentioned above can be used as a basic list from which additions or deletions can be made. Additional topics of needs/problems and interests can be included as time permits.

In the presentation of these areas of needs/problems and interests, a variety of instructional techniques should be used. One important technique found to be of great interest to participants is audiovisual aids. These aids would permit optimal exposure of the participants to information related to their health needs/problems and interests. In particular, it is recommended that slide presentations accompanied by cassette recordings be developed and used. An example of this would be a slide presentation on exercise and physical fitness with a narrator explaining what is shown on the screen. The health aspects of exercise, plus actual demonstrations could be shown. A series of these presentations should be compiled, each lasting five to ten minutes. The benefits of this technique are numerous. They could be used during

the two-hour session, or available during the lunch hour or other times throughout the entire preretirement program. Health instruction then would not be just limited to the two-hour session. Also, the slide and tape presentation should be available anytime for viewing by those who are interested.

If time permits, problem-solving activities should be encouraged. Realistic problems should be investigated by the group and practical solutions offered for these problems. The intent is to develop the individual's skill in choosing between alternative solutions, those that best meet his/her needs/problems and interests. Opportunities should be made to discuss problems and interests with questions and answers from the participating group.

Each participant should be encouraged to arrange for individualized counseling with the physician or health educator or both. A physician at this time can provide medical information if necessary.

Packets of health information should be provided to all participants. The health-related materials should be selected on the basis of the most frequent health needs/problems and interests as expressed by the participating group. As an example, information from the Heart Association on diet, exercise and fitness, and other factors related to heart disease could be included and if necessary, the physician or health educator could provide answers to questions that arise. Exercise and physical fitness programs as developed by The President's Council on Physical Fitness could be obtained for older citizens. The main point

is that information related to a variety of health needs/problems and interests should be available to those who desire to use it now or sometime in the future.

As with all programs, evaluation should occur in order to provide for continuous improvements. The participants' input regarding personnel, format, topics, time, materials, and techniques used should be sought in order to provide the best possible program to meet the health needs/problems and interests of those who attend.

CHAPTER VII

EPILOGUE

Preretirement programs are a relatively new concept in modern society. These programs have as their purpose the provision of information that will help the individual plan for his retirement so that the transition from being employed to being retired will be relatively smooth.

Until a few years ago, preretirement programs, if one existed, were thrown together with the idea that some program was better than none at all. Programs of one organization would be emulated by that of another group without any factual support for either group's preretirement program.

As is true for any successful program, an in-depth study must be made of all phases of the program in order to insure it is meeting the needs/problems and interests of those whom it is trying to serve. Comprehensive preretirement programs consist of a variety of topics thought beneficial to those preparing for retirement. Therefore, each topic, financial planning, health, leisure-time activities, or whatever, must be based upon the particular needs/problems and interests of individuals in that specific area of content.

A study was undertaken to determine the health needs/problems and interests of a group of employees who were within ten years of retirement age, 65. The other study group was retirees who had been

retired for five years or less. The employee group believed their health to be average and it did not interfere with their normal activities. A majority of the retired group felt relatively healthy and their health did not particularly limit their daily routine. Both groups' interest in health matters were average.

The employed sample stated as their greatest health needs/problems: (1) chronic disease, (2) exercise and physical fitness, (3) access to doctors and medical facilities, and (4) knowledge of medical insurance. Their health interests of the most concern were exercise and physical fitness and knowledge of medical insurance. The retired sample stated as their greatest health needs/problems: (1) chronic disease, (2) exercise and physical fitness, and (3) knowledge of medical insurance. The topics of the most concern to retirees were: (1) weight control, (2) exercise and physical fitness, and (3) the ways to prevent poor health.

The health needs/problems and interests of the two groups were compared to determine if they were significantly different from one another. The employee sample's needs/problems were significantly different from retirees in the areas of: (1) food needs (nutrition) of the older citizen, (2) exercise and physical fitness, and (3) rest and relaxation. The topics of food needs of the older citizen and the ways to prevent poor health were of more interest to employees than retirees. Retirees significantly differed from employees in their interest in the effects of the aging process on the human body.

The remainder of the study sought information related to both groups' opinions about the format of a health education and information component of a preretirement program. There was no difference in the two groups' belief that health is the second most important topic to be included in a preretirement program; financial planning ranked first. The majority of both groups believed the health component could be or has been of value in helping them to identify and meet their health needs/problems and interests.

For the health session itself, the groups agreed that a two hour session was adequate time for the discussion of health. They agreed that the health component should be presented utilizing a variety of instructional techniques such as: (1) small group discussion with a group leader, (2) audiovisual aids, and (3) individualized counseling.

Using the information provided by the study, a model health education and information component for a comprehensive preretirement program was developed. The health component is only a suggested model to be modified and improved to meet the particular needs/problems and interests of the group to whom it is presented. Evaluation of the suggested program should be a continuous process incorporating the ideas and concerns of those who plan, present and participate in it.

REFERENCES CITED

REFERENCES CITED

1. Ash, Philip, "Pre-Retirement Counseling," The Gerontologist, Vol. 6, No. 2 (June, 1966), 97-99+.

2. Balabokin, M. E., et. al., "Health and Nutrition," The Gerontologist, Vol. 12, No. 2, Part 2 (Summer, 1972), 21-28.

3. Beattie, Walter M. Jr., "Matching Services to Individual Needs of the Aging," Vol. III, Working with Older People: A Guide to Practice. U. S. Public Health Service Publication No. 1459. Rockville, Md.: U. S. Department of Health, Education, and Welfare, May, 1972.

4. Bennett, Ruth, "Living Conditions and Everyday Needs of the Elderly with Particular Reference to Social Isolation," International Journal of Aging and Human Development, Vol. 4, No. 3 (Summer, 1973), 179-198.

5. Birren, James E., "Psychological Aspects of Aging: Intellectual Functioning," The Gerontologist, Vol. 8, No. 2, Part 2 (Spring, 1968), 16-19.

6. Brody, Elaine M. and Stanley J. Brody, "A Ninety-Minute Inquiry: The Expressed Needs of the Elderly: An Analysis," The Gerontologist, Vol. 13 (Winter, 1973), 412-418.

7. Brody, Stanley, "Comprehensive Health Care for the Elderly: An Analysis," The Gerontologist, Vol. 13 (Winter, 1973), 412-418.

8. Brotman, H. B., "Counting the Aged Poor," Aging, Vol. 150 (April, 1967), 10-12.

9. Butler, Robert N. and Myrna I. Lewis, Aging and Mental Health. St. Louis: The C. V. Mosby Company, 1973.

10. Byerts, Thomas, et. al., "Transportation," The Gerontologist, Vol. 12, No. 2, Part 2 (Summer, 1972), 11-16.

11. Carp, Francis M., Retirement. New York: Behavioral Publications, Inc., 1972.

12. Carp, Francis M., ed. The Retirement Process. U. S. Public Health Service Publication No. 1778. Bethesda, Maryland: National Institute of Health, 1966.

13. Charles, Don C. "Effect of Participation in a Pre-Retirement Program," The Gerontologist, Vol. 11, No. 1, Part 1 (Spring, 1971), 24-28.

14. Chinn, Austin B. and Edith G. Robins. The Daily Needs and Interests of Older People. ed. Adeline M. Hoffman. Springfield: Charles C. Thomas, 1970.

15. Christrup, Helen, and Clifford Thurman. "A Preretirement Program that Works," Journal of Home Economics, Vol. 65, No. 4 (April, 1973), 20-22.

16. Clark, Margaret. "Patterns of Aging Among the Elderly Poor of the Inner City," The Gerontologist, Vol. 11, No. 1, Part 2 (Spring, 1971), 58-66.

17. Coe, Rodney M. "Assessment of Preventive Health Practices for the Aged," The Gerontologist, Vol. 13, Part 1 (Autumn, 1972), 345-348.

18. Cowgill, Donald O. "The Demography of Aging," The Daily Needs and Interests of Older People. ed. Adeline M. Hoffman. Springfield: Charles C. Thomas, 1970.

19. Cumming, Elaine and William Henry. Growing Old: The Process of Disengagement. New York: Basic Books, 1961.

20. Earl, Howard G. "Taking the Fear Out of Retirement," Today's Health, Vol. 45, No. 2 (February, 1967), 64-67.

21. Fact Sheet on the President's Message to the Congress on Older Americans. "Nutrition," Aging, No. 151 (May 1967), 20.

22. Field, Minna, Aging With Honor and Dignity. Springfield: Charles C. Thomas, 1968.

23. Fields, Theron J. "Report to a gerontology class at The University of Tennessee on TVA's Program of Preparation for Retirement." Knoxville, Tennessee, July 11, 1974.

24. Fillembaum, Gerda G. "Retirement Planning Programs—At what Age, and for Whom," The Gerontologist, Vol. 11, No. 1, Part 1 (Spring, 1971), 33-36.

25. Gersuny, Carl. "The Rhetoric of the Retirement Home Industry," The Gerontologist, Vol. 10, No. 4, Part 1 (Winter, 1970), 282-286.

26. Hamlin, Roy M. "A Utility Theory of Old Age," The Gerontologist, Vol. 7, No. 2, Part 2 (June, 1967), 37-45.

27. Hart, Gifford R. "Planning Ahead for Retirement," Physical Therapy, Vol. 50, No. 5 (May, 1970), 737-749.

28. Havighurst, Robert J. "Successful Aging," The Gerontologist, Vol. 1, No. 1 (March, 1961), 8-13.

29. Heyman, Dorothy K. "Does A Wife Retire?" The Gerontologist, Vol. 10, No. 1, Part 2 (Spring, 1970), 54-56.

30. Holley, William H., Jr., and Hubert S. Feild, Jr. "The Design of a Retirement Preparation Program: A Case History," Personnel Journal, Vol. 53, No. 7, (July, 1974), 527-530+.

31. Hunter, Woodrow W. A Longitudinal Study of Pre-Retirement Education. U. S., Educational Resources Information Center, ERIC Document ED 024 869, June, 1968.

32. Hunter, Woodrow W. "Preretirement Education for Hourly-Rated Employees," Industrial Gerontology, No. 7 (Autumn, 1970), 35-37.

33. Itzin, Frank. "Social Relations," The Daily Needs and Interests of Older People. ed. Adeline M. Hoffman. Springfield: Charles C. Thomas, 1970.

34. Jaffe, A. J. "The Retirement Dilemma," Industrial Gerontology, No. 14 (Summer, 1972), 1-88.

35. Jourard, Sidney M. The Transparent Self. New York: D. Van Nostrand Company, 1971.

36. Kasschau, Patricia L. "Reevaluating the Need for Retirement Preparation Programs," Industrial Gerontology, Vol. 1, No. 1 (Winter, 1974), 42-59.

37. Kent, Donald P. "Aging—Fact and Fancy," The Gerontologist, Vol. 5, No. 2 (June, 1965), 51-56+.

38. Kent, Donald P. "The Elderly in Minority Groups:Variant Patterns of Aging," The Gerontologist, Vol. 11, No. 1, Part 2 (Spring, 1971), 26-29.

39. Krejcie, Robert V. and Daryle W. Morgan. "Determining Sample Size for Research Activities," Educational and Psychological Measurement, Vol. 30 (1970), 607-610.

40. Lawton, Alfred H. "Accidental Injuries to the Aged," The Gerontologist, Vol. 5, No. 2 (June, 1965), 96-100.

41. Lenzer, Anthony. "Health Care Services," Vol. III. Working with Older People: A Guide to Practice. U. S. Public Health Service Publication No. 1459. Rockville, Md.: U. S. Department of Health, Education, and Welfare, May, 1972.

42. Lopata, Helena Z. "Widows as a Minority Group," The Gerontologist, Vol. 11, No. 1, Part 2 (Spring, 1971), 67-77.

43. McGuire, Marie C. "The Status of Housing for the Elderly," The Gerontologist, Vol. 9, No. 1 (Spring, 1969), 10-14.

44. Monk, Abraham. "A Social Policy Framework for Pre-Retirement Planning," Industrial Gerontology, No. 15 (Fall, 1972), 63-70.

45. Oliver, Weldon. "A Public School Approach: Pre-Retirement Education," Aging in Today's Society. eds. Clark Tibbitts and Wilma Donahue. Englewood Cliffs: Prentice-Hall, Inc., 1960.

46. Osborn, Margaret. "Nutrition of the Aged," The Daily Needs and Interests of Older People. ed. Adeline Hoffman. Springfield: Charles C. Thomas, 1970.

47. Palmore, Erdman B. "Differences in the Retirement Patterns of Men and Women," The Gerontologist, Vol. 5, No. 1, Part 1 (March, 1965), 4-8.

48. Pihlblad, C. T. and David Adams. "Widowhood, Social Participation and Life Satisfaction," Aging and Human Development, Vol. 3, No. 4 (1972), 323-330.

49. Powell, John Walker. "This Question of Retirement," Aging in Today's Society. eds. Clark Tibbits and Wilma Donahue. Englewood Cliffs: Prentice-Hall, Inc., 1960.

50. Pyron, H. C. "Preparing Employees for Retirement," Personnel Journal, Vol. 48, No. 9 (September, 1969), 722-727.

51. Shanas, Ethel. "Health and Adjustment in Retirement," The Gerontologist, Vol. 10, No. 1, Part 2 (Spring, 1970), 19-21.

52. Shanas, Ethel. "Health Care and Health Services for the Aged," The Gerontologist, Vol. 5, No. 4 (December, 1965), 240+.

53. Siegel, Sidney. Nonparametric Statistics for the Behavioral Sciences. New York: McGraw-Hill Book Company, 1956.

54. Simmons, Leo W. "Sociopsychological Factors Which Affect Health in the Later Years," Maintaining High Level Wellness in Older Years. ed. Lois N. Knowles. Gainesville: University of Florida Press, 1965.

55. Tallmer, Margot and Bernard Kutner. "Disengagement and Morale," The Gerontologist, Vol. 10, No. 4, Part 1 (Winter, 1970), 317-320.

56. Walker, Roger Williams. "Summary of Evaluation of TVA Planning for Retirement Program." Knoxville, Tennessee: Tennessee Valley Authority, 1959. (Mimeographed)

57. White House Conference on Aging. Education: Background and Issues, Washington: Government Printing Office, February, 1971.

58. White House Conference on Aging. Income: Background and Issues, Washington: Government Printing Office, February, 1971.

59. White House Conference on Aging. Nutrition: Background and Issues, Washington: Government Printing Office, March, 1971.

60. White House Conference on Aging. Physical and Mental Health: Background and Issues, Washington: Government Printing Office, March, 1971.

61. White House Conference on Aging. Retirement: Background and Issues, Washington: Government Printing Office, February, 1971.

62. White House Conference on Aging. Section Recommendations on Education, Washington: Government Printing Office, 1971.

63. White House Conference on Aging. Section Recommendations on Employment and Retirement, Washington: Government Printing Office, 1971.

64. White House Conference on Aging. Section Recommendations on Retirement Roles and Activities, Washington: Government Printing Office, 1971.

65. White House Conference on Aging. Transportation: Background and Issues, Washington: Government Printing Office, March, 1971.

66. Youmans, E. Grant. "Some Perspectives on Disengagement Theory," The Gerontologist, Vol. 9, No. 4, Part 1 (Winter, 1969), 254-258.

APPENDICES

APPENDIX A

HEALTH NEEDS AND INTERESTS QUESTIONNAIRE

HEALTH NEEDS AND INTERESTS QUESTIONNAIRE

Directions

Please respond to the following questions and place a check mark (X or ✓) in the space that applies to you. Return the questionnaire in the envelope provided no later than March 18, 1975. The information will be used to compare your responses to the questionnaire with other respondents. Thank you for your cooperation.

1. Present employment status with TVA?

___ Employed
___ Retired

2. Sex?

___ Male
___ Female

3. Marital status?

___ Married
___ Single
___ Widowed
___ Separated/Divorced

4. Age at last birthday?

___ under 55
___ 55-59
___ 60-64
___ 65-69
___ 70 or over

5. Total yearly family income?

___ Under $3,000
___ $3,001-$7,000
___ $7,001-$10,000
___ $10,001-$15,000
___ $15,001-$20,000
___ over $20,000

6. Highest level of education?

___ 0-6 years
___ 7-9 years
___ 10-11 years
___ high school graduate
___ college 1-3 years
___ college graduate
___ post graduate

7. What is or was your occupation with TVA? Please be as specific as possible. Examples - draftsman, engineer, clerk, accountant, administrative officer, etc.

8. Do you usually feel healthy enough to carry out the activities you would like to do?

1. ___ Yes
2. ___ No

9. Is your health better or worse than that of other people your age?

   1. ___ Better
   2. ___ About the same
   3. ___ Worse

10. How often do you read magazine or newspaper articles about health and medicine?

   1. ___ Most all of the time
   2. ___ Every now and then
   3. ___ Hardly ever
   4. ___ Not sure

11. How often do you listen/watch radio and television programs dealing with health and medicine?

   1. ___ A whole lot
   2. ___ Every now and then
   3. ___ Hardly ever
   3. ___ Not sure

12. Would you be willing to attend a free program offered in your community if it provided information about your health needs and interests in your retirement?

   1. ___ Yes
   2. ___ No
   3. ___ Not sure

13. Did you attend, or do you plan to attend, TVA's Program of Preparation for Retirement?

   1. ___ Yes
   2. ___ No
   3. ___ Not presently eligible, but do plan to attend when eligible
   4. ___ Do <u>not</u> plan to attend when I become eligible

14. Do you believe TVA's Program of Preparation for Retirement can help or has helped you enjoy successful retirement?

   1. ___ Yes
   2. ___ No
   3. ___ Not sure

15. TVA's Program of Preparation for Retirement includes discussions on (1) Retirement and Financial Planning, (2) Retirement Benefits, (3) Health, (4) Planning Activities, (5) Family Relationships and Where to Live, and (6) Wills and Estate Planning.

    a. If you have attended TVA's program, do you feel these discussions adequately cover topics of concern to you?

    Yes ___ No ___

    If no, please list below any topics which you feel should be added or covered in more detail.

    b. If you have not attended this program, what other topics do you feel should be covered that are not now part of the program?

16. In the following areas of preretirement planning, which do you feel are important? Place a "1" in front of the one you consider the most important and a "7" in front of the one you consider the least important. Rank the others accordingly.

    ___ Legal services

    ___ Health planning

    ___ Continuing education

    ___ Psychological needs

    ___ Community involvement

    ___ Leisure-time activities

    ___ Financial planning

17. All people have health needs or problems which interfere with their well-being and prevent them from enjoying the highest level of health of which they are capable. Please check each health problem or need that applies to you.

    1. ___ Aging and mental health
    2. ___ Acceptance of death and dying
    3. ___ Alcohol, smoking, and drugs
    4. ___ Accidents and the aging citizen
    5. ___ Food needs of the older citizen

6. ___ Weight control
7. ___ Exercise and physical fitness
8. ___ Rest and relaxation
9. ___ Protection and maintenance of hearing and vision
10. ___ Dental health

11. ___ Environmental hazards (air, water, noise pollution, etc.)
12. ___ Infectious disease (flu, tuberculosis, hepatitis, etc.)
13. ___ Chronic disease (heart disease, cancer, strokes, arthritis, etc.)

14. ___ Knowledge of community health programs and services

15. ___ Access to doctors and medical facilities
16. ___ Knowledge of medical insurance (Medicare, Medicaid, etc.)
17. ___ Family living
18. ___ Sex and the aging man and woman
19. ___ Other, Please specify _____

18. From the list of health problems above, please choose the five that are your greatest health needs or problems and list the numbers in the spaces provided.

1. ___ First greatest
2. ___ Second greatest
3. ___ Third greatest
4. ___ Fourth greatest
5. ___ Fifth greatest

19. Health interests are those health areas about which you are concerned and you give them special attention. Which of the following would you identify as a health interest you have and about which you would desire more information? Please check as many health interests as you have.

1. ___ Mental illness
2. ___ Aging and mental health
3. ___ Alcohol, smoking, and drugs
4. ___ Accidents and the aging citizen
5. ___ Food needs of the older citizen

6. ___ Effects of the aging process on the human body
7. ___ Theories of the aging process
8. ___ Health in relation to the aging process
9. ___ Structure and function of the human body
10. ___ Protection and maintenance of hearing and vision

11. ___ Exercise and physical fitness
12. ___ Rest and relaxation
13. ___ Posture and body mechanics
14. ___ Dental health
15. ___ Weight control

16. ___ Environmental hazards and your health
17. ___ Community health programs and services
18. ___ Infectious disease
19. ___ Chronic disease
20. ___ Family living

21. ___ Sex and the aging man and woman
22. ___ Health protection, life expectancy, and mortality
23. ___ The ways a person can prevent poor health
24. ___ How to choose a doctor
25. ___ Medical insurance

26. ___ Access to doctors and medical facilities
27. ___ Acceptance of death and dying
28. ___ Other, please specify _____

20. From the list of health interests above, please choose the five that are of the most interest to you and list the numbers in the spaces provided below.

1. ___ First choice
2. ___ Second choice
3. ___ Third choice
4. ___ Fourth choice
5. ___ Fifth choice

21. Do you believe TVA should use other health-related organizations to provide information to help you understand your health problems and interests?

1. ___ Yes
2. ___ No
3. ___ Not sure

22. How long prior to retirement do you believe preretirement planning programs should be presented to TVA's employees?

1. ___ 1 year
2. ___ 5 years
3. ___ 10 years
4. ___ Other, Please specify _____

23. TVA's present Program of Preparation for Retirement includes approximately two hours in a discussion on health. Would you favor an increase, decrease, or about the same amount of time spent discussing health?

1. ___ Increase
2. ___ Decrease
3. ___ Remain the same
4. ___ Not sure

24. Which of the following techniques would you favor being used in the TVA retirement preparation program? Please check the techniques you believe would be most beneficial to you.

1. ___ Audiovisual aids (television, films, filmstrips, etc.)
2. ___ Large group (30-40 people) with a discussion leader)
3. ___ Large group without a discussion leader
4. ___ Small group (10-15 people) with a discussion leader)
5. ___ Small group without a discussion leader
6. ___ Individualized counseling
7. ___ Group counseling
8. ___ Problem solving activities
9. ___ Other, Please specify _____

25. Of the teaching techniques you selected in Question 22, please indicate the three you would most prefer and place the number of your choices in the spaces provided.

1. ___ First choice
2. ___ Second choice
3. ___ Third choice

26. Do you believe TVA's Program of Preparation for Retirement can help or has helped you identify and meet your health needs or problems and interests?

1. ___ Yes
2. ___ No
3. ___ Not sure

APPENDIX B

LIST OF JURY MEMBERS USED TO DETERMINE CONTENT VALIDITY

LIST OF JURY MEMBERS USED TO
DETERMINE CONTENT VALIDITY

Arthur Allen, Chief
Employee Development Staff
252 New Sprankle Building
Tennessee Valley Authority
Knoxville, Tennessee 37902

Dr. Robert C. Atchley
Scripps Foundation Gerontology Center
Miami University
Oxford, Ohio

Mrs. Gladys Beach
Knoxville Council on Aging
611 Winona Street
Knoxville, Tennessee 37917

Dr. William Cole
Professor, Sociology
University of Tennessee
Knoxville, Tennessee 37916

Mr. Newton Dicks, Chief
Retirement Service Branch
Tennessee Valley Authority
Knoxville, Tennessee 37902

Elmo Emily, Chief
Health Planning and Education
Division of Medical Services
218 Edney Building
Tennessee Valley Authority
Chattanooga, Tennessee 37401

Dr. Theron Fields, Chief
Human Resource Development Staff
327 Millers Building
Tennessee Valley Authroity
Knoxville, tennessee 37902

Mrs. Beatrice Fonde, Director
Senior Citizen's Information
and Referral Service
611 Winona Street
Knoxville, Tennessee 37917

Dr. Claire E. Gilbert, Chairperson
Knoxville Council on Aging
611 Winona Street
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Dr. Edward F. Heenan, Director
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University of Tennessee, Nashville
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Dr. Stephen Laser
Employee Development Staff
353 New Sprankle Building
Tennessee Valley Authority
Knoxville, Tennessee 37902

Dr. John Ray
Associate Professor
Curriculum and Instruction
University of Tennessee
Knoxville, Tennessee 37916

Dr. Bill Wallace, Professor
Department of Health and Safety
University of Tennessee
Knoxville, Tennessee 37916

APPENDIX C

COVER LETTERS FOR HEALTH NEEDS AND INTERESTS QUESTIONNAIRE

March 3, 1975

Richard Riggs, a graduate student at the University of Tennessee, is writing his doctoral dissertation on TVA's Program of Preparation for retirement. Mr. Riggs is primarily interested in the health-related aspects of retirement and specifically the session on health in our preretirement planning meetings. He hopes to design a session on health to better meet the needs of people approaching retirement.

We have agreed to assist Mr. Riggs with his study. We believe it will provide feedback essential to assuring that TVA's program continues to meet the needs of our employees. A random sample of TVA retirees and TVA employees is being asked to complete the enclosed questionnaire. Once completed, it should be returned in the enclosed addressed envelope by March 18, 1975. Please do not sign the questionnaire. We are not interested in individual responses. Responses will be analyzed on a total sample basis.

Thank you for your time and cooperation.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

/s/ Arthur H. Allen (hlt)

Arthur H. Allen, Chief
Employee Development Staff
Division of Personnel

Enclosure

March 26, 1975

Just a reminder regarding the questionnaire you recently received asking about the health-related aspects of retirement and about your ideas concerning TVA's Preretirement Planning Program. We are interested in your ideas and would like to encourage your response.

If you have already mailed the questionnaire, thank you. If not and you plan to do so, please remember not to sign the questionnaire. We are not interested in individual responses. Responses will be analyzed on a total sample basis.

Thank you for your time and cooperation.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

/s/ Arthur H. Allen

Arthur H. Allen, Chief
Employee Development Staff
Division of Personnel

APPENDIX D

CHI-SQUARE VALUES OF QUESTIONS WHICH DID NOT PROVE SIGNIFICANT BY EMPLOYMENT STATUS

TABLE 61

CHI-SQUARE VALUES OF QUESTIONS WHICH DID NOT PROVE SIGNIFICANT BY EMPLOYMENT STATUS

Questions	Chi-Square Value	Degree of Freedom	Level of Significance
9. Is your health better or worse than that of other people your age?	5.22365		.0734
10. How often do you read magazine or newspaper articles about health and medicine?	5.73367	3df.	.1253
11. How often do you listen/watch radio and television programs dealing with health and medicine?	4.56786	3df.	.2063
12. Would you be willing to attend a free program offered in your community if it provided information about your health needs and interests in your retirement?	5.40922	2df.	.0669
15a. If you have attended TVA's program, do you feel these discussions adequately cover topics of concern to you?	.88061	1df.	.3480
17. Health needs/problems:			
1. Aging and mental health	3.71761	1df.	.0538
2. Acceptance of death and dying	.85929	1df.	.3539
3. Alcohol, smoking, and drugs	.81722	1df.	.3660

TABLE 61 (continued)

Questions	Chi-Square Value	Degree of Freedom	Level of Significance
4. Accidents and the aging citizen	.00248	1df.	.9602
6. Weight control	.06528	1df.	.7983
9. Protection and maintenance of hearing and vision	.08133	1df.	.7755
10. Dental health	2.95638	1df.	.0855
11. Environmental hazards	.00000	1df.	.9999
12. Infectious disease	.57991	1df.	.1163
13. Chronic disease	2.98377	1df.	.0841
14. Knowledge of community health programs and services	.43937	1df.	.5074
15. Access to doctors and medical facilities	.73287	1df.	.3920
16. Knowledge of medical insurance	.30689	1df.	.5796
17. Family living	1.61213	1df.	.2042
18. Sex and the aging man and woman	.00601	1df.	.9382
19, Other	1.76863	1df.	.1836
19. Health interests:			
1. Mental illness	3.45656	1df.	.0630
2. Aging and mental health	.00266	1df.	.9589
3. Alcohol, smoking and drugs	.01231	1df.	.9117
4. Accidents and the aging citizen	.08543	1df.	.7701
7. Theories of the aging process	.00071	1df.	.9788
8. Health in relation to the aging process	.00003	1df.	.9958
9. Structure and function of the human body	1.21099	1df.	.2711
10. Protection and maintenance of hearing and vision	.00047	1df.	.9828
11. Exercise and physical fitness	1.51188	1df.	.2189
12. Rest and relaxation	1.42454	1df.	.2327
13. Posture and body mechanics	.05005	1df.	.8230

TABLE 61 (continued)

Questions	Chi-Square Value	Degree of Freedom	Level of Significance
14. Dental health	3.62242	1df.	.0570
15. Weight control	2.08706	1df.	.1486
16. Envinonmental hazards and your health	.13268	1df.	.7157
17. Community health programs and services	1.00512	1df.	.3161
18. Infectious disease	.55205	1df.	.4575
19. Chronic disease	.00043	1df.	.9835
20. Family living	2.67428	1df.	.1020
21. Sex and the aging man and woman	3.72693	1df.	.0535
22. Health protection, life expectancy, and mortality	.10450	1df.	.7465
24. How to choose a doctor	.55712	1df.	.4554
25. Medical insurance	.59580	1df.	.4402
26. Access to doctors and medical facilities	.92818	1df.	.3353
27. Acceptance of death and dying	2.65841	1df.	.1030
28. Other	1.30491	1df.	.2533
21. Do you believe TVA should use other health-related organizations to provide information to help you understand your health problems and interests?	.24379	2df.	.8852
24. Instructional Techniques:			
1. Audiovisual aids	2.09495	1df.	.1478
2. Large group with discussion leader	.00841	1df.	.9269
3. Large group without a discussion leader	.02857	1df.	.8658
4. Small group with discussion leader	1.72267	1df.	.1894
6. Individualized counseling	1.00076	1df.	.3171
8. Problem solving activities	.30130	1df.	.5831
9. Other	.60694	1df.	.4359

VITA

Richard Stanley Riggs was born in Parkersburg, West Virginia, in 1945. He attended the public schools of St. Marys, West Virginia, and was graduated from St. Marys High School in 1963. During the summer of 1963, he enrolled in David Lipscomb College, Nashville, Tennessee, and was graduated with a Bachelor of Science degree in Health, Physical Education, and Recreation in 1966. He entered Middle Tennessee State University in Murfreesboro, Tennessee, and was graduated in 1967 with a Master of Education degree in Health, Physical Education, and Recreation and minoring in Educational Administration and Supervision. He accepted a position as Instructor of Health and Physical Education at Memphis State University, Memphis, Tennessee, beginning the fall of 1967 and remaining there until 1973. He accepted a teaching assistantship at the University of Tennessee in Knoxville and was awarded the Doctor of Education degree in Health Education in June, 1975. His minor was Educational Psychology.

He is married to the former Jane Ann Liles of Bucyrus, Ohio.